PHILIPPINE EMPLOYMENT IN THE SEVENTIES

ROSA LINDA P. TIDALGO
and
EMMANUEL F. ESGUERRA

PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

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R.L. P. Tidalgo and E. F. Esguerra
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FOREWORD

One of the most important development challenges that confronts the Philippines in the years ahead is the need to provide jobs to the currently unemployed and underemployed members of the labor force as well as to the 600,000-650,000 persons who join the labor force every year. Accordingly, employment promotion remains a high priority in our country's total development efforts.

This study on Philippine employment in the seventies by Rosa Linda P. Tidalgo and Emmanuel F. Esguerra presents valuable information and insights on the Philippine employment scenario. It reviews the findings and recommendations of employment research, highlights the employment experience in the 70's, evaluates the overall policy framework for employment promotion, assesses the state of Philippine employment statistics, and indicates the factors which should be considered in formulating employment policy. The problems identified in the study, e.g., the capital-bias promoted by the structure of economic incentives and pattern of industrialization; the failure of the industrial sector to absorb labor from agriculture; the need for timely and accurate information on employment; and the need to harmonize employment policies with other development policies, do not require further emphasis. Certainly, sustained national development depends a great deal on how these problems are approached and resolved.

It is hoped that this study can in one way or another assist in promoting more effective and consistent employment policies and programs in the future.

FILOLOGO PANTE, JR.
President

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Chapter 1

INTRODUCTION

The employment problem continues to confront Philippine economy. Among all productive resources, labor power cannot be stored and its wastage means the inability of individuals and households who only have labor power to get a share of total output, in effect denying them of basic material needs that is the essence of development. Given the urgency of the employment problem, there is a need to understand and evaluate how the economy performed in this area of concern and learn from this evaluation.

This study of Philippine employment in the 1970s contains six sections after the Introduction. Chapter 2 presents a review of the literature on the employment experience in the 1970s. It concentrates on those studies dealing primarily with the demand component of the labor market and highlights a number of policy-related issues which has emerged in recent years from the research work on employment and unemployment. Chapter 3 is an evaluation of Philippine employment statistics as a set of measures of labor utilization. It is first assessed relative to more appropriate measures of labor utilization in LDCs. Then it evaluates the quality of the employment data from the household surveys which have been the main source of employment statistics in the Philippines. Chapter 4 discusses the policy environment in the seventies in an attempt to explain the employment experience during that period. It is intended to provide a starting point for policy mapping which can be a useful method for analyzing the directional impact of government policy measures on employment generation. Chapter 5 presents an evaluation of the employment experience in the 1970s by first assessing the extent of the employment problem, and then focusing on a description of the employment generation by industry in the 1970s in comparison with that of the late 1950s and 1960s. The third section of the chapter attempts to analyze the employment trend by industry based on a heuristic framework which defines the growth of employment in terms of the growth of output, the productivity per person engaged and the incremental labor-output ratio. The study ends with the summary and conclusions in Chapter 6.

Chapter 2

A REVIEW OF LITERATURE ON PHILIPPINE EMPLOYMENT IN THE 1970s

The employment literature in the seventies reflects the sense of urgency with which both government policy makers and academic economists alike view employment generation. This concern is evident in the studies which sum up the employment experience in the Philippines in the fifties and the sixties, first, in the context of recent criticism of the country's industrialization attempts in said periods; and second, as a starting point for laying down the direction of the employment strategy in the decade of the seventies. The employment literature is also indicative of an appreciation by economists of the specific characteristics of a less developed economy in that a number of researches have been devoted to a development as well as refinement of labor utilization concepts more applicable to the Philippine situation.

This review focuses on the employment experience of the Philippines in the seventies. It concentrates on those studies which deal primarily with the demand side of the labor market and highlights a number of policy-related issues which have emerged in recent years in the course of research work on employment and unemployment.

The first section of this chapter outlines the general observations made in the literature regarding the failure of past government policies to deal effectively with the unemployment problem. The current state of knowledge on the nature of unemployment, the factors responsible for it and its concrete manifestations in the agricultural, industrial and services sectors of the economy is then reviewed in the three sections that follow. In the fifth section, the formal-informal sector dichotomy is evaluated in terms of how this typology has aided our understanding of the problem and its implications on employment policy.

Labor Absorption and Government Policy

The employment experience in the Philippines must be seen in the context of the basically agricultural character of the economy and the attempts, both past and present, to industrialize as the only way to overcome the constraints posed by the relative scarcity of land on the further growth of output. It is evident, however, that conceptualizing labor employment as automatically resulting from an

industrialization effort that by itself will absorb the redundant labor force in the low productivity agricultural sector has its shortcomings.

A great deal of the literature on economic development, industrialization and employment which have appeared in the seventies contain extensive criticisms of the industrialization and trade strategies pursued in the fifties and the sixties. The more prominent works which carry such criticisms are those of the ILO [1974], IBRD [1976], and Bautista and Power [1979]. More recently, an IBRD country study [1980] of the industrial strategy of the Philippines came out. This country study focuses on particular industries in the country's manufacturing sector.

The common theme running through the abovementioned works is that industrialization and trade strategies in the fifties and the sixties favored relatively less use of labor. This was so because of the capital bias promoted by the structure of economic incentives then. In particular, the policy of import substitution during the period of "controls" in the fifties encouraged the domestic production of finished industrial consumer good substitutes, while imported raw materials, intermediate goods and capital goods which were considered "more essential" were made available at artificially low prices.

The deterioration of the country's balance of payments situation owing to the heavy import dependency of the industries which the import substitution policy of the fifties spawned paved the way for the "decontrol" policy of the sixties. But as Bautista and Power [1979] argue, such policy reforms "did not alter very much the incentive structure favoring import substituting industries that produced consumer goods at the finishing stages." The highly protective tariff system merely maintained the previous bias in the earlier decade against backward integration and production for export. Thus the growth of industries was stunted and the economy failed to reap the benefits that could be gained from comparative advantage and economies of scale by producing for the world market.

A related argument against the industrialization and trade strategies pursued in the fifties and sixties is that these have resulted in the geographic concentration of industries in the metropolitan areas, chiefly Greater Manila, and the neglect of small and medium industries. While the regional dispersal of industries and the growth of small and medium ones could have helped absorb the excess coming from the agricultural sector, such could not materialize for a number of reasons. First, the industries availing of the benefits made possible by the industrial and trade policies found it convenient to locate

themselves close to financial and government institutions based in Manila which was also the port of entry of their imported production inputs. Second, these favored institutions, by the nature of their output, catered principally to a market composed of the high income classes generally situated in the metropolis. Third, tax and credit policies in effect during the period discriminated against small producers. And finally, technical assistance through licensing agreements and equity participation of foreign firms was available only to big firms.

In brief, the failure of the industrial sector to create more jobs was the result not so much of its inability to expand output but of the nature of the industrialization process itself. Constrained by the already available technology which had been developed in the labor scarce Western economies, the pattern of industrialization could not but be capital-intensive. Such bias for capital-intensive technology was reinforced by imperfections in the market – an overvalued currency making for cheaper imported machinery, an interest rate structure favoring cheap capital acquisition by big enterprises and tax laws that encouraged capital intensity, among others. Moreover, the failure to develop productive opportunities for employment within the agricultural sector accentuated the problem of unemployment as rural-urban migration was hastened in response to the perceived better opportunities in urban employment.

Tidalgo's study [1976] of labor absorption in the Philippines in 1956-1973 lends empirical support to the criticisms outlined above insofar as the employment effects of the industrialization strategy pursued in the last two to three decades are concerned.

That the industrial shift of employment in the Philippines has been from agriculture to services (instead of from agriculture to industry and then to services as has been the observed pattern in the currently developed countries) raises some doubts regarding the ability of the industrial sector to absorb the excess labor from the agricultural sector. It is highly probable that the services sector has become the depository of the spillover labor force from the agricultural sector.

Agriculture

In 1974, the ILO Mission recommended the "mobilisation of the rural sector" as part of its two-pronged strategy for employment, equity and growth. Programs to generate employment in the rural sector were deemed necessary because of the limited capacity of the

industrial sector to absorb the expanding labor force.

Much of the literature on employment and labor use in the agricultural sector in the seventies, however, have dealt mainly with the rice sector. This is probably due to the attention attracted by the introduction of the new rice technology. Until about 1960, rice production could be increased through the expansion of cultivable land and the increase in labor inputs. But with the limits to available crop land having been reached, continued output growth started to depend on measures that would increase land productivity. These included the use of modern varieties, fertilizers, herbicides, weedicides and tractors and mechanical threshers.

The mechanization of the rice sector has caused some apprehension regarding the possibility of a major labor displacement. The evidence as borne out by available literature to date, however, remains ambiguous at best. While the use of tractors has considerably reduced labor requirements for land preparation, this reduction has been more than offset by increased labor use for care-of-crop activities such as weeding associated with the high-yielding varieties. Barker and Cordova [1978] suggest that herbicides appear to be used more as a supplement to, rather than as a substitute for, hand weeding. The increased yields resulting from the use of the new rice technology have also necessitated greater labor use for the harvesting and threshing stages of rice production [Barker, Meyers, *et al.*, 1971; Barker and Cordova, 1978].

However, no definite conclusion can be drawn regarding the impact of the new technology on labor use in the rice sector. The rate of mechanization is dependent not only on economic factors such as farm size, relative factor prices and existing resource endowments. It also depends on such non-economic variables as prevailing institutional arrangements and methods of cost- and product-sharing. It has been observed, for example, that threshing in Central Luzon is mechanized, but not in Laguna. Moreover, the use of mechanical threshers started way back in 1966 even before the diffusion of high-yielding varieties. Barker and Cordova [1978] attribute their observation to the landlord-tenant system in the region. Landlords in Central Luzon generally had large landholdings operated by a large number of tenants, and the use of mechanical threshers was a means of ensuring control over the sharing of the crop at harvest time. They note further that in 1974, the use of mechanical threshers had declined and argue that the shift from share-tenancy to leasehold could have brought about this decline because it was no longer neces-

sary for landlords to control crop-sharing.

Government programs to raise farm productivity through the use of tractors and other farm machinery made accessible by low-cost loans also affect labor use on farms. Barker and Meyer [1971] note that such type of technology made available by foreign sources is not conducive to farming under tropical conditions.

Unfortunately, not much attention has been given in the literature to institutional changes in the structure of rice farming and the consequences of these on labor utilization. What we know is that the use of hired labor on rice farms is increasing relative to family labor such that the percentage share of wage and salary workers in agricultural employment has increased in the 1970s. Much less research attention has been given to other crop sectors. Although available evidence points out that the new rice technology has not resulted in major labor displacements, this cannot be claimed for the whole agricultural sector. The increase in recent years of landless rural workers who offer their labor services for free during weeding time in order to gain the right to be hired during the harvest season for a share of the produce is partly indicative of labor displacement in process. This process may be gradual, taking shape over a number of years as the land under cultivation becomes exhausted to the point of making any further subdivision among family members unproductive. Ledesma's case study [1980] of two rice villages in Iloilo and Nueva Ecija illustrates this phenomenon well. The labor displacement process may also be abrupt as a result of such government-promoted programs as large-scale plantation agriculture, corporate farming, and rural infrastructure development. Again however, the magnitude of this phenomenon is not known inasmuch as the concern over labor displacement and labor use has largely been confined to rice areas.

Taking the agricultural sector as a whole, it is possible that what is being observed as an increase in hired-labor use in small rice farms is actually the offshoot of labor displacement in other crop areas or even rice areas whose production arrangements have undergone modification. In view of the limited employment opportunities in the industry sector of the economy, those displaced may have no alternative but to stay and sell their labor services in the agricultural sector. So that as a whole, agricultural employment is not increasing but merely undergoing transformation. A concomitant feature of this transformation is the reduction of incomes among the agricultural labor force [Griffin, 1978].

In the main, technology in agriculture has been more traditional than modern. To some extent, this could be due to the fact that rice and corn farming are the predominant occupations, and the small average size of rice and corn farms poses a constraint to the economical use of capital-intensive technology. Coconut farming is also relatively labor-using, owing to the dominance of small farms in this sector, although the nature of caring for this crop leaves much to be desired in terms of the quality of the employment that it generates [Librero, 1972]. Sugar farming and forestry and logging are capital-intensive activities, and it seems there has been no significant technological changes in these areas as far as the past decade is concerned. The capital intensity of the two latter sub-sectors may be traced not only to the nature of the product involved but also to the historical involvement of developed countries (the US for sugar and both US and Japan for forestry and logging) in these areas which has influenced both technology and scale of operation.[1]

In 1977 a joint study by the ILO, Bureau of Forest Development and the Government of Finland established that despite its current capital-intensity, the possibilities for the use of "intermediate" or "improved" labor-intensive techniques in forestry operations in the Philippines exist. Such techniques were also shown to be technically feasible with the least cost alternatives at prevailing market prices. Moreover, the use of these "intermediate" technologies increase productivity when compared to the primitive techniques; but while they are less labor-using relative to the manual methods, they are less labor-displacing than the capital-intensive machine methods. [See also Laarman, Virtamen and Jurvelius, 1981]. This study provides an argument in favor of the development and adoption of techniques which are able to combine machines and manual labor in a manner that is consistent with both the employment and output growth objectives.

The extent of labor absorption in the rural areas is also influ-

1. While the coconut sector has also been greatly influenced by trade with the developed countries, coconut farming has remained generally labor-using. This difference, we suspect, could have been due to the greater strategic importance historically attached by the developed countries to controlling the sugar trade such that vertical integration of the industry became a matter of necessity. In contrast, world trade in coconuts and its by-products did not carry the same importance historically, there being many substitutes for coconut-based commodities. The initiative to vertically integrate the coconut industry is a more recent development (circa 1974-75) inspired by a desire on the part of coconut industry leaders to improve the sector's terms of trade.

enced by the growth of non-farm economic activities. These activities are seen as inevitably proceeding from agricultural modernization even if such merely takes the form of purely productivity increases. Gibb's [1972] pioneering work on non-farm activities cites the increase in demand for goods and services with increases in farm incomes. New off-farm and nonfarm jobs reported by farm household members included work as tricycle and jeepney drivers, dressmakers, storekeepers, retailers and others. These activities catered mostly to direct comsumption effects of income expansion. But as modernity spreads, non-farm economic activities shift toward production of processed agricultural goods and provision of public services to cater to the changing tastes and preferences of rural households brought about by increasing incomes. Alburo's [1978] study of two towns in Iloilo bears this out.

Non-farm economic activities provide employment for the rural labor force and thus help prevent rapid urban migration. The expansion of non-farm enterprises and their potential for employment generation depend, however, on the growth of incomes in the rural/agricultural sector. Considering the low incomes of the agricultural population the problem is whether non-farm economic activities can grow fast enough to absorb even just that part of the labor force that is now being displaced on farms as a result of agricultural modernization. And this, over and above the yearly additions to the supply of agricultural labor who can little expect to find productive employment on land.

Industry

The industry sector is made up of the following: manufacturing, mining and quarrying, construction, public utilities and transport and communication. Within this sector, manufacturing industries have been the most favored, being the target of most of the industrialization policy measures of the government.

Employment growth in the manufacturing sector has not been very encouraging. The capital bias inherent in the industrialization strategy pursued in the fifties and the sixties is the standard explanation for the disappointing performance of manufacturing in terms of employment generation. The heavy protection accorded the import-substituting industries which failed to develop backward linkages and produce for the export market as a result is also an oft-cited reason for the inability of the manufacturing sector to expand, and with it, employment.

The industrialization strategy of the fifties and the sixties left in its wake a highly dualistic structure of the manufacturing sector characterized on the one hand by an "organized" sector employing about one-third of the manufacturing work force and producing much of the value-added in the manufacturing sector, and on the other hand, by an "unorganized" sector that employs about two-thirds of the manufacturing labor force and yet produces little of manufacturing value-added [IBRD, 1980].

The profitable opportunities for relatively large investments of capital opened up by the policy of import controls in the fifties led to the emergence of large scale manufacturing at an early stage of the industrialization process. Local families and corporations already established in finance and trade together with United States manufacturers who found their Philippine market threatened responded to the situation by undertaking investments on a scale that was large in relation to the Philippine market [ILO, 1974]. The area of concentration of investments was in capital-intensive industries such as food and textiles, chemicals, oil and coal products, non-metallic minerals and basic metals.

The focal point of discussions on employment generation and government policies in the seventies has been the Board of Investments' (BOI) investment incentive package which was introduced in the late sixties to correct the deficiencies brought about by earlier industrialization policies [Abella, 1972; ILO, 1974; Tidalgo, 1976; Bautista and Power, 1979; IBRD, 1980]. The incentives which were provided through the Investment Incentives Act of 1967 are intended to direct investments to certain preferred areas. The preferred areas are to be identified by the BOI which is the government body empowered to grant incentives to both local and foreign firms which qualify on the basis of certain criteria. Exports have also been encouraged through the Export Incentives Act of 1970 which provides for a number of fiscal or tax incentives to firms producing for the export market.

In assessing the effectiveness of the BOI incentives package, studies have paid attention to the ways by which incentives have countered the relative factor price distortion resulting from the tariff system- and import controls. By going over these studies which examine the effects of the current industrial policies on factor use and intensity, factor productivity, export growth, development of small and medium industries and industry dispersal, one can have a sense of how such policies have influenced and are influencing

employment generation.

A study by Noriega [1974] which assesses the performance of the investment priority plans for the first five years of their existence based on a set of investment criteria found out that industries registered with the BOI had an average labor intensity (defined as labor-output ratio) of 1.1 or greater than unity ratio performance. With respect to all industries in the export priority plans, the average labor intensity was 1.13. If these figures are compared with the labor absorption experience in the period 1956-73, BOI-registered firms with labor-output ratios of unity may be considered good, although this ratio may not be high enough if priority is to be given labor absorption [Tidalgo, 1976].

The dominant view insofar as labor absorption is concerned appears to be that government policies to promote labor-intensive industries will play a key role in dealing with the unemployment problem. But the success with which the government can promote labor-intensive industries is limited by the contradictions among the different objectives to which industrialization policies are addressed, namely: output growth, employment generation, export promotion, the use of a high proportion of domestic materials and regional industry dispersal. The contradictions among these different goals present themselves in at least two ways. The first is in the manner in which the incentives are given. The second is in the nature itself of the incentives.

Gregorio [see Bautista and Power, 1979] notes for instance that the deduction of labor costs from taxable income applies only to export-oriented firms. If employment generation is to be considered an area of immediate concern, then there seems to be no reason why the subsidy for employment should be restricted to exporting firms. Of course the other side of the question is whether subsidizing the labor costs of exporting firms will substantially contribute to export promotion and thereby increase employment opportunities.[2] Bautista and Power [1979] opine that improvements in the tariff structure in the direction of removing the penalty on exports would more likely lead to rapid industrial expansion. Earlier Bautista [1973], demonstrated the limited medium-term employment effect of an expansion in manufactured exports without any drastic change in the

2. For a discussion of the employment effects of Philippine exports, see Alban [1973]. See also Noriega [1973] for the employment impact of labor-intensive manufactured exports.

export structure or in the degree of labor intensity in export-producing industries. This brings us to the second contradiction in current industrialization policies: the nature of incentives.

It has been found that the more important BOI incentives have a capital-cheapening effect [ILO,1974; Bautista and Power,1979]. This situation runs counter to the goal of employment generation. Here the circuitous manner in which one objective of the industrialization program is approached is also observable in that labor-intensive industries are encouraged through incentives which have a predominantly capital-cheapening effect. Thus, while new investment in certain areas may result in some amount of employment expansion, such expansion takes place only to the degree allowed by the firms' response to the incentives which have a capital bias. Based on calculations made by the study on industrial promotion policies in the Philippines, the relative bias of the BOI incentives against labor use has actually reduced employment by some 40.7 thousand in 1977 [Bautista and Power, 1979]. The actual reduction in employment could be higher, according to the same study, had indirect employment effects been accounted for in the estimates.

The ILO [1974] also found that the relatively capital-intensive industries were getting the major portion of the total fiscal incentives benefits accruing to the BOI-registered industries. Industries registered with the BOI were predominantly large firms. These findings have negative implications on resource use and employment. The bias toward large firms indicates a bias toward capital intensity and inefficiency in capital use as indicated by the strong positive correlation between size and capital intensity, and a strong negative correlation between capital intensity and capital productivity [ILO, 1974].

The bias toward capital intensity is manifested in the investment pattern observed by the IBRD [1980] in its recent study of Philippine manufacturing. According to said study, the bias toward capital-intensive industries displayed in the pattern of investment for the period 1960-69 was hardly affected in the period 1970-75 despite the tariff changes and export promotion measures taken in the early seventies.

With respect to the efficiency of resource use, it is possible that the capital bias of the incentives granted by the BOI could have exacerbated the situation of capital idleness in the manufacturing sector. Recall that the effect of such policies in the past which made the private cost of the capital build-up relatively inexpensive was the establishment of many firms each running at substantially less than

full capacity. With the observed concentration of BOI incentives on large and capital-intensive firms, it is probably a safe generalization to make that the BOI incentives have in fact augmented the already existing underutilized capacity in manufacturing. Estimates of the economic benefits foregone in terms of producible output and employment as a result of capital idleness were done by Bautista [1972] using 1969 data. He argues that full capacity operation in the manufacturing sector in 1969 could have meant gainful employment for roughly 40 per cent of the openly unemployed labor force.

Diokno [1974], on the other hand, points out the limited prospect of employment generation among government favored export-oriented firms. This is because most of the "new" manufactured export in the BOI's priority list cannot be considered labor-intensive. Diokno thus raises the question of the desirability of government policies designed to promote the fuller utilization of capital among inherently import-dependent capital-intensive industries, considering that such efforts would entail drawing scarce resources away from other more labor-intensive industries.

From the literature there seems to be a consensus that the investment policies in effect during the seventies failed to alter to any appreciable degree, the factor price distortions in the earlier decades which favored relatively less use of labor. This consensus implies that the direction of future policy should be towards getting factor prices "right". According to this line of reasoning, if prices are allowed to reflect the true scarcity value of the various factors of production, producers will employ the factors in such proportions as to reflect their relative scarcities. Employment of the country's most abundant resource — labor — and the efficient use of available resources would then be promoted.

However, from existing relative factor prices, the prevailing state of technology can also explain the unsatisfactory labor absorption in the economy. In this particular area, there is a dearth of material, although it is widely recognized that the Philippines, being a latecomer in development, chooses technology that is largely influenced by the capital-intensive techniques already made available by developed economies. Except for occasional references to the state of technological borrowing however, the tendency has still been to give prominence to factor price distortions and to attribute the choice of capital-intensive technologies to relative factor prices.

The above approach which subsumes the matter of technological choice under the problem of getting factor prices "right" assumes the

existence of a wide range of available techniques with different labor and capital intensities for producing any given output such that correcting the factor price distortions will result in greater labor use. At a point in time, however, one can more often than not, find only a narrow range of techniques dictated by technological advances in the more developed economies. These are presumably the more efficient techniques for the production of a particular product and they are likely to be more capital-intensive than earlier ones. This appears to be the irreversible direction of development of technology. Stewart [1974] in *Technology and Employment in LDCs* states that if the less developed economies could avail of the technologies from advanced countries while these were at the stage of development that was more or less equivalent to what LDCs are now in, then these LDCs would probably have less employment problems. However, the machinery for the production of the older technologies which are associated with lower capital expenditure per labor employed is often not available thus, the resort to smaller scale production units and less sophisticated products. Stewart further points out that older methods are probably more expensive in terms of capital costs per unit of output as well as labor costs because developments in technology may entail saving both capital and labor.

Given the above considerations, a change in relative factor prices may not necessarily result in sufficient employment generation. But since most studies in the Philippines have not determined how much of the existing capital bias in the manufacturing sector is due to factor price distortions and how much to technological reasons, it might be overly optimistic to predict that a significant increase in employment would result by merely correcting distortions in factor prices.

Factor prices constitute only one among several considerations in the choice of technique. A particular technique is chosen also because it is more compatible with existing factor inputs other than capital and labor which the economy can provide, or because it is the most efficient relative to a certain scale of production. The specification of the product or the output mix which is circumscribed by the distribution of income in the economy also plays an important role in the choice of technique. This is recognized by ILO [1974] and Oshima [1976]. However, only Stretton [1979] in his study of the construction industry has attempted to empirically verify this.

Thus differences in the factor intensity of the technology employed across firms are explainable in terms of differences in their

scale of operation, product specification, input requirements as well as the initial competitive status of these firms in both product and factor markets. These variables are in turn reinforced by the kind of technology available and used, at times giving rise to certain problems such as excess capacity, insufficiency of demand, lack of material inputs, lack of skilled manpower, and others [Diokno, 1974].

The aforementioned problems and their negative implications on employment generation call attention to the essentially private character of investment decision-making in the Philippine economy. Each firm behaving atomistically strives to maximize some objective function subject to certain constraints which are particular to it as well as based on information which is neither complete nor perfect. Thus the extent to which labor absorption may be promoted is largely an end result of individual decisions made by firms with regard to the profitability of an investment or of a particular technique based on considerations of the nature of production, input requirements, scale of operation, product specification and factor prices.

The degree of rigidity in production coefficients is also determined by the relative influence that foreign donors, creditors and investors wield over the choice of technology by locally-based enterprises. Foreign investments have not substantially contributed to employment not only because they have been ploughed into industries which are capital intensive and have limited linkage effects [Subido, 1973] but also because the type of technology used has merely been transplanted from the home country of the foreign investors.

Forsyth, McBain and Solomon [1980] explored the opportunities for, and barriers to, substitution of labor for capital across a wide range of manufacturing industries in LDCs, including the Philippines. Using data for the period 1967-70, they found that there was a strong and clear-cut tendency among LDC producers to install more labor-intensive technology where engineering circumstances permit. However, they also observed missed opportunities for doing so in the Philippines. Moreover, they argue that corrective adjustments in factor prices and technology choice will at best have a marginal effect on employment since the area for maneuver in many industries is fast contracting as the speed of innovation tends to raise minimum economic levels of scale.

However, small and medium industries, because of their large share in total manufacturing employment and their relative labor-

intensiveness are still viewed as offering the greatest scope for employment generation and are actively being encouraged by government policy.

Nguyen's [1978] study is a descriptive overview of small manufacturing in the Philippines for some years during the period 1958 to 1971 in terms of its employment size, and its capacity for employment creation. Small industry was defined in the study as manufacturing establishments with less than 100 workers. Using the concept of employment-output growth elasticity to analyze the contribution of growth of small manufacturing output to employment growth, the study found that the growth of employment given an increase in output is higher for small firms in general than for large firms. However, Nguyen also points out that once the subsector of small manufacturing composed of establishments with 1-4 workers is excluded from the analysis, results indicate that small manufacturing is not as employment generating as might have been suspected.

The 1-4 workers subsector of small manufacturing is usually referred to as the "unorganized" or "cottage" sector. Production activities in this sector are generally carried on in private homes with the aid of electrical gadgets and/or hand manipulation [Chico, 1973]. This subsector was found by Nguyen [1978] to be sustaining about 97 per cent of total self-employed and unpaid family workers based on 1971 data. If one considers the less than 20 workers subsector, the proportion of total self-employed and unpaid family workers covered is almost 100 per cent.

The less-than-20 workers subsector of small manufacturing includes many very small service workshops and some producers of low quality utilitarian goods such as footwear, furniture, and garments which find a market among the poorer consumers of the domestic market [IBRD, 1980].

The heavy concentration of workers in the less than 20 workers subsector of manufacturing and the low productivity of this subsector suggest severe underemployment. On the other hand, the relatively little contribution (with a few exceptions) to output and employment of firms with 20-49 and 50-99 workers is indicative of the absence of a large and productive modern subsector of small manufacturing [Nguyen, 1978].

Chico [1973] and Escarilla [1973] both provide a useful background of the problems related to small-scale industry development. These problems are also mentioned in the ILO report [1974]. They include, but are not limited to, inadequate institutional credit, lack

of skilled management and manpower, scarcity of information about modern labor-intensive technologies and relative neglect by the government. Despite these problems Hife [Bautista and Power, 1979] found many industries at small and medium scale to be labor intensive and efficient in capital use. Hife also found that among the minority receiving assistance, poor performance in efficiency and growth was the rule rather than the exception. He thus argues that government support must be extended only to those firms with promising growth potentials and which are efficient in resource use.

The IBRD [1980] identifies processed foods, apparel, musical instruments, wooden furniture and footwear as promising areas in small and medium scale industries where the Philippines should be able to exploit its comparative advantage in labor and contribute to manufactured export. It (IBRD) stresses, however, the importance of improving quality standards as a prerequisite for a successful performance in the export market. Some amount of technical assistance at the production level will be required accordingly.

The direction of development of small and medium industries insofar as government policies are concerned may therefore be summed up as: first, increasing the productivity of this sector and its share to total output, and second, enhancing the participation of small industries in export development. The two are mutually reinforcing.

The degree to which employment in small manufacturing may expand as a result of government measures to promote this sector depends on a number of factors. The product markets for small industries are, and it seems will remain, predominantly domestic, i.e. the low- and middle-income groups. Thus output expansion in such commodity groups as processed foodstuffs, beverages, utensils, shoemaking and ceramic products will depend on the purchasing power of the low- to middle-income classes. In this connection, attempts to prevent wages from increasing "until the labor surplus condition comes to an end" [ILO, 1974, p. 471] could be self-contradictory.

Raising the productivity of small industries and improving quality standards to meet the requirements of the export market will likewise necessitate certain changes in the structure of production, particularly with respect to technology. The ILO [1974] notes: "All technologies, whether suitable for large or small enterprises, have by now generally been redesigned to save labour." [ILO, 1974 p. 554]. The question therefore is to what extent output will conti-

nue to expand such that the rate of labor absorption generated by increased production is greater than the rate of labor displacement resulting from the possible use of more advanced technology. Attempts to answer this question have been no more than expressions of optimism about the effects on exports of further tariff liberalization and the health of the international economy.

Construction is a subsector under the broad category called industry which deserves some mention particularly because it was a boom sector in the seventies. Construction encompasses a wide range of production activities related to the erection of residential, commercial, industrial and institutional buildings or structures; the building of physical support infrestructure and the installation of utility plants. These activities are not limited to the building of new structures, but include as well the repair, improvement, restoration and even demolition of existing structures, fixtures and other construction output. Also to be included are the installation of equipment machinery and other services such as repairs, tests and other service-related activities [Armas, 1978].

The construction sector possesses several characteristics which make it an important potential source of employment. First, the industry requires a low level of skills [ILO, 1974]. This may be attributed to the wide range of techniques available in the industry [Stretton, 1979]. Second, the industry has a relatively high degree of backward linkage. As such even a modest growth in this sector is easily transmitted to its supplying industries. As the ILO [1974] notes, construction creates an additional demand for labor through indirect employment effects which have been estimated to amount to 88 per cent of the direct effects. And third, the construction business has the government as its biggest client. The last characteristic underscores the importance of the construction sector as a source of employment in that the pace of its activity and growth is immediately manipulable through government policies and programs.

As a whole, the construction industry is dominated by small firms mostly organized as single proprietorships. Depending on the type of construction activity, however, the pattern changes. Generally, small firms are dominant among contractors of terrazo, tile, marble, painting, decorating, carpentry and wood flooring. On the other hand, large establishments dominate the construction of public infrastructure and utilities. This pattern was essentially unchanged for the years 1961, 1967 and 1972 [Armas, 1978].

Stretton [1975] discusses the results of a survey of 47 building

sites in Manila, Makati and Quezon City which provide information on some characteristics of the building industry work force. On the basis of this survey which covered 91 construction workers, Stretton shows two possible profiles of the building industry laborer which indicate that: (a) the industry acts as a sponge absorbing some recent migrants to the city who are unable to find employment in the manufacturing sector; and (b) the building industry is actively encouraging rural-urban migration by offering a higher and more secure income in the Greater Manila Area to those already employed in the same industry in the provincial towns. These observations suggest geographical concentration of construction activity and employment in the metropolitan areas. The ILO [1974] earlier made the same observation. It also noted the biased regional distribution of government infrastructure expenditures in favor of only two regions, Rizal (which includes Manila) and Central Luzon. These two regions accounted for almost half of total infrastructural investment in the period 1956-1972.

The technology in the construction sector, has been observed to be biased towards capital and import intensity. This trend was observed in the 1960s [ILO, 1974] as well as for the period 1956-1974 [Stretton, 1979]. Armas' findings [1978] suggest that this is the rule even for small firms. Stretton's study [1979] in particular discusses the changes in factor intensity of construction activity over the period 1956-1974 and examines the reasons for such changes. The trend of increasing labor productivity which was also taken in the study to mean increasing capital intensity was examined with a change in the construction sector's output mix, a change in relative factor prices and technological progress as possible reasons for the increase. This hypothesis was tested by regression analysis using macro data and the results of a case study conducted in the Greater Manila Area in 1975.

The results of Stretton's regressions suggest that a change in output mix has had a major impact on the level of employment generated by the construction sector. Over time, there has been a shift of the construction sector's output mix away from single-storey dwellings and small nonresidential buildings towards government construction and high rise buildings which were found to be more capital intensive than conventional ones. In addition, within government building and construction there has been a shift towards more capital-intensive projects (e.g. highways, telecommunications, etc.). Stretton lists a number of forces which have caused the shift in the

output mix in the building industry based on his Greater Manila survey. These were: attempts to persuade multinational corporations to establish their regional headquarters in Manila, direct incentives provided by the government for investment in hotels, the effects of the unequal distribution of income on the demand for luxury, high-rise residential units, the expansion of the modern commercial sector, and the restraint on the level of credit released for low and middle income housing.

The scope for government action in influencing the output mix and the level of employment in the construction industry is discussed by both the ILO [1974] and Stretton [1979]. The latter argues that one possible way of wielding control over the output mix of the industry is by directing the use of credit released by financial institutions such as the SSS and the GSIS in areas where the social productivity of the capital invested is higher than the private rate of return, such as in low-cost housing. The ILO suggests the application of labor-intensive alternatives in infrastructure works, particularly in road and highway construction where much of the work content is compatible with the use of labor-intensive methods. Involving the local people in the execution of communal infrastructure development projects was also cited as one way of making construction activity more employment creating.

Services

The experience of LDCs shows that the services sector is an important sector because of its role in labor absorption. It has been observed that, contrary to the experience of developed countries in which the employment share of the services sector increased relative to that of agriculture and manufacturing only at a late stage of development, the employment share of the services sector increased faster than that of the two sectors even at a stage of underdevelopment. A hypothesis advanced to explain this phenomenon in LDCs is that the slow growth of manufacturing prevents absorption of low productivity workers in agriculture, forcing them to go to the services sector where supply-created employment is highly possible.

Relatively little attention has been given the services sector as an area of study as evidenced by the paucity of studies in this sector. Moreover, the studies are fairly recent, coming within the second half of the seventies. This is perhaps indicative of the interest that has developed only lately in the sector because of its importance, as a

source of employment in the context of a less-developed economy.

The services sector in the Philippines is defined to include the following: commerce, government, community, business and recreational services, domestic services and personal services other than domestic.

A national perspective of the employment characteristics of the services sector is provided by Tidalgo and Jurado [1978]. Employment in this sector is predominantly female. Among females there is a marked concentration in domestic services whereas males tend to concentrate in government, community, business and recreational services.

The services sector was also found to be heavily urban in orientation (about 67 per cent), whereas total employment is predominantly rural (about 70 per cent). Wage and salary workers, not self-employed and unpaid family workers, predominate in this sector.

The trends in labor absorption in the services sector are discussed by Tidalgo [1976] for the period 1966-73. Commerce generated the most number of employment, followed by government, community, business and recreational services, then domestic services followed by personal services other than domestic.

The predominance of wage and salary workers in the services sector could probably be due to the relative size of the government sector as an employer. Tidalgo [1976] notes that there was a marked increase in the share of this sector to total wage and salary workers from 1957 to 1973, such that it accounted for the highest proportion of wage and salary workers by 1973. Employment in government, it was observed, is characterized by high personnel turnover as indicated by the high percentage of provisional and temporary employees (45.7 per cent in 1962-71). This also tends to support the oft-repeated description of the government as a welfare institution which provides employment based more on welfare considerations rather than on productivity considerations as is usual in the private sector. In addition, government employment is used as a means for dispensing political favors. Government infrastructure programs may also explain the relatively high employment generation in this sector especially after 1969.

With the exception of government, the bulk of the services sector is unorganized in varying degrees. The total employment in domestic services is considered to be in the unorganized sector. During the period 1961-71, 81.8 per cent of total employment in commerce was in the unorganized sector; 74.7 per cent of total employment in

personal services also fell under the unorganized sector [Tidalgo, 1976].

The Formal-Informal Sector Dichotomy

The failure of the manufacturing sector to absorb the economy's growing labor force, much less provide employment for the labor force being released by the agricultural sector has led to the phenomenal growth of small-scale activities which constitute a form of self-employment for those who cannot be employed otherwise. These economic activities are confined among low productivity enterprises which predominantly cater to low-income households, are labor-intensive in character and are relatively free from government interference. Free entry and exit characterize the business environment of these enterprises and their ability to survive from day to day is largely dependent on their owners' capability to harness limited internal savings to finance enterprise operations.

The relative concentration of employment in such small-scale enterprises which contribute a proportionately small share to value added has been observed in the manufacturing and especially in the services sectors. This pattern which is evident in many LDCs has led to the formulation of the concept of an "informal" or "unorganized" sector as contrasted with the "formal" or "organized" sector whose defining characteristics include: difficulty of entry, frequent reliance on overseas resources, corporate ownership, large-scale operation, capital-intensive and often imported technology, formally acquired skills, often expatriate, and protected markets. Most of these characteristics have been promoted by the nature of industrial policies pursued in the past, and it is the recognition of the employment inhibiting effect of these characteristics of the "formal" sector which has generated concern for the "informal" sector as a new found source of employment.

Studies on the informal sector in the Philippines are fairly recent. These studies were done in 1978 under the sponsorship of the International Labour Organization, the agency responsible for the popularization of the "informal sector" concept.[3] These studies include an overview of the informal sector in the Greater Manila Area [Ju-

3. For a good background of the origin, development and application of the informal sector concept, see *World Development* Vol. 6, No. 9/10, September-October 1978. This volume provides critical discussions of the concept, in respect to both intellectual validity and policy implications.

rado and Castro, 1978], and individual papers on the informal manufacturing [Canlas and Jurado, 1979], trade [Ferrer and Jurado, 1978], services [Tidalgo and Jurado, 1978], transport [Alonzo and Jurado, 1978], and construction [Armas, 1978] sectors.

In general, these studies are concerned with the productivity, employment and income generating potential of the enterprises in the informal sector. In examining these variables of interest, such characteristics as size of the enterprise, its structure, linkages with the external environment (i.e. external to the enterprise and the sector), hours worked, wages and characteristics of the enterprise head were looked into. Several regression equations were then ran to find out whether the said characteristics had any significant impact on the sector's productivity, employment-creating capacity and profitability. The scope for government policy and action vis-a-vis the sector was then outlined.

We draw from the more general study [Jurado and Castro, 1978] which is based on a sample of 3,500 enterprises in the Greater Manila Area to highlight the main findings of the researches on the informal sector.

In the main, enterprises in the informal sector are characterized by low productivity, small employment, modest fixed assets, long hours of work and low wages. The majority of the enterprises finance their fixed and variable capital requirements from internally generated savings. Furthermore, the enterprises have very little linkage with the "formal" sector.

The attempt to explain the enterprises' productivity, employment and income generating power in terms of the characteristics enumerated above through regression analysis proved futile in all these studies. This rendered difficult the task of identifying the policy instruments that can be used to influence the firms' productivity, employment and income generating potential.

The failure to come up with any significant regression result in the abovementioned studies may indicate that informal sector enterprises do not behave in any systematic manner that allows for policy control of their behavior, which is to be expected. The formal-informal dichotomy simply classifies economic activities into two categories according to the characteristics defined to typify firms as belonging to one or the other sector. The informal sector concept lumps together enterprises with varying reasons for being, and it is the looseness in this classification that might be responsible for the failure of any systematic relationship between the enterprises' cha-

racteristics and their contribution to value-added, employment-generating potential and profitability.

As an area of research, the "informal" sector category could be useful in that it focuses on the array of economic activities resorted to by a fraction of the labor force as a means of maintaining subsistence. But that is probably the length that the concept can carry us. Insofar as employment in the "informal" sector is defined as employment resulting from the inability of members of the labor force to find work in the mainstream of the economy, then it must be remembered that whenever we deal with this sector, we are dealing with unemployment or at least one of its manifestations. Therefore not much emphasis must be given to studying the "informal" sector for prescribing employment policies. That would be tantamount to skirting the problem of unemployment altogether and concentrating efforts instead on promoting a sector (of the unemployed) because it has been found "capable" of generating more employment than any other sector. Perhaps a more fruitful approach is to study the processes which make enterprises end up in the "informal" sector and how it is possible to reverse these processes if such reversal is necessary.

Summary

The literature on Philippine employment and unemployment in the seventies generally exhibits a strong bias toward an examination of the determinants of employment as well as the impediments to greater employment generation. The dominant view is that unemployment through the years has in large measure been abetted by government policy.

The employment literature, however, has not really gone beyond viewing the unemployment situation as merely the result of imperfections in the structure of relative prices arising from the implementation of "incorrect" policies. As a consequence, the recommendations have not gone beyond pointing to the need to adjust relative factors prices so that these may properly reflect the relative scarcities of the factors of production, thereby resulting in the greater employment of the economy's abundant resource, labor. While this view and the recommendations that proceed from it are not entirely without merit, they seem to have reduced the solution to the problem of unemployment to one of mere job creation regardless of the terms at which the resulting employment might be obtained. This

approach tends to overlook the question of equity or income distribution, a problem in relation to which employment creation seems to be of more urgent concern as may be inferred from official pronouncements. Thus, discussions on the employment question seem to have "thrown the baby out with the water."

Existing studies have not also segregated the influence of relative factor prices and technology on labor absorption. The inability to do so is less a result of technical difficulties than of the view that technological choice is mainly influenced by relative factor prices. This view could lead to overly optimistic estimates of the impact of correcting factor price distortions on labor absorption. In addition, the scope for labor-capital substitution within a given production technology for the different industries needs to be explored alongside the possibilities for developing a technology that could employ more labor without sacrificing productivity.

The effect of the output mix on employment has also not been systematically studied. If the proposition that industries which cater to the needs of the low-income strata tend to be more labor-intensive can be empirically verified, then a strong case can probably be made for income distribution as an employment-creating strategy in itself through its impact on the size of the domestic market.

The inability of the industry or manufacturing sector to absorb entrants to the labor force as well as migrants from the rural sector has occupied extensive space in employment literature. The conditions in the agricultural sector as a whole and the forces accelerating the displacement of the working force in this sector have, however, escaped focus. It may be worthwhile looking into the changing conditions of agricultural employment especially since government programs may also be responsible to some extent for the displacement of workers. Given the present inability of the manufacturing sector to absorb the labor force released from agricultural employment, it is of equal importance to investigate the alternative employment opportunities open to displaced workers and the conditions attendant to these opportunities. The policy questions that will follow from such researches will be interesting, among which will probably be the internal consistency of the government's development policies and programs and their overall impact on employment and labor incomes.

Chapter 3

AN EVALUATION OF PHILIPPINE EMPLOYMENT STATISTICS

A nation would be interested in measuring total employment or labor utilization for at least two reasons. First, though abundant relative to other resources, labor is a productive input which should not be wasted. Also, labor power is the only factor of production that cannot be stored. The labor power of an able-bodied person who cannot find work is completely wasted for that period. Second, ownership of productive inputs determines one's income or share of total output. For many in less developed countries who possess only labor power, the utilization of their services is their only source of income, determining their relative share of income and material welfare.

Measures of Labor Utilization

Being a latecomer in the development game, LDCs have the advantage of learning from the developed countries' experiences such as those which concern the measurement of economic activities. In measuring labor utilization, developed countries have tried different approaches at different periods of their development. The gainful worker approach was used in the United States until the depression of the 1930s when unemployment and underemployment became pressing problems which could not adequately be measured by the approach. Consequently, a more appropriate measurement, the labor force or active population approach, was developed. By 1950, both approaches were made available to other countries by the United Nations. By 1970, the United Nations through its World Census Program, abandoned the former approach and pushed for the use of the latter.

In the case of the Philippines which was once a U.S. colony, the gainful worker approach was used in its censuses from the beginning of the 20th century through 1948. This was replaced by the labor force approach starting in 1956.

In the gainful worker approach, an individual of working age, as defined by a minimum cutoff age of 10 or 15 years, is classified as gainfully or not gainfully working depending on whether or not one has a profession, an occupation or trade. Since no time reference is specified in this measure nor is it based on the existence of a work activity, it may underestimate the unemployed by counting as gain-

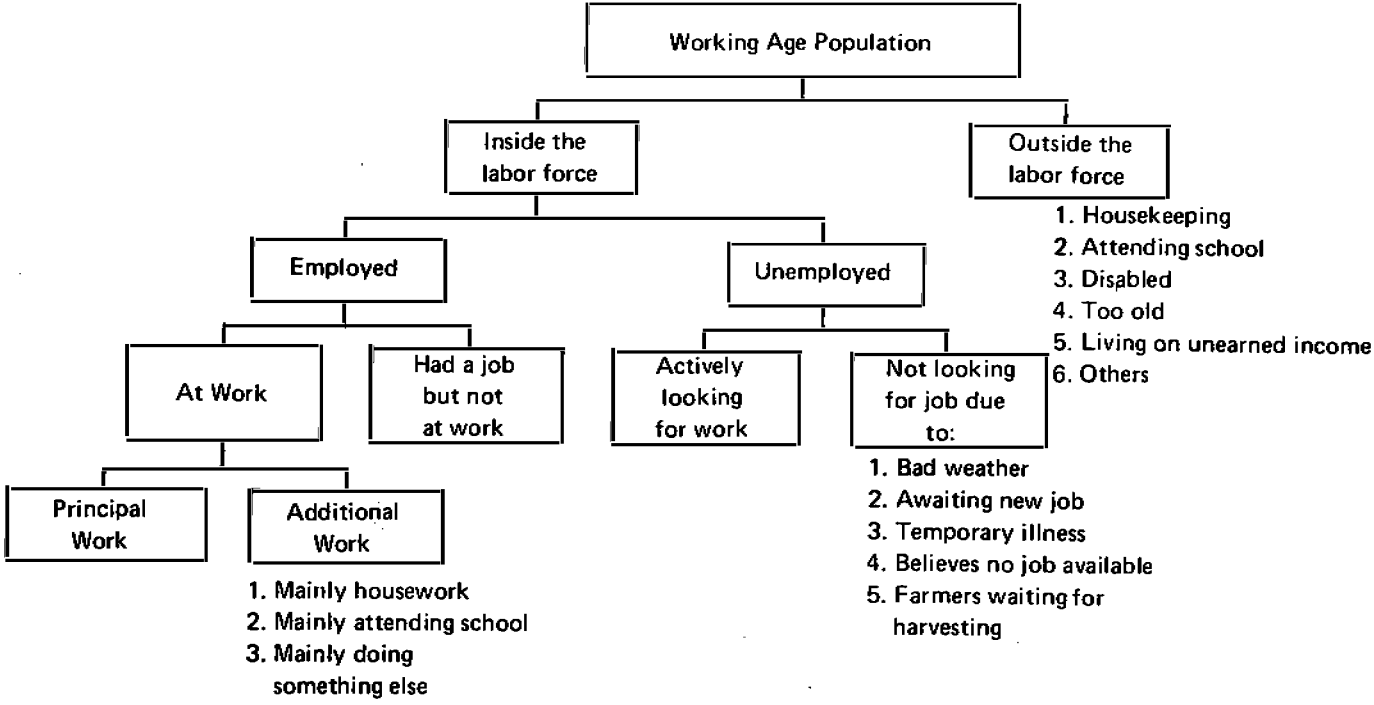
fully working those with occupation but who are already retired or without work.

On the other hand, the labor force approach is based on an activity criterion that is behavioristic rather than status-oriented. The definition of whether a person is or is not in the labor force is presented in Figure 3.1. The working age population is first defined in terms of a given age limit – usually a lower limit of 10 or 15 years old and an upper limit that might be defined by the retirement age of 65 years old. This working age population is divided into those inside and those outside the labor force. Those in the labor force are either employed or unemployed. The employed may be at work or not at work. Those at work are further described by hours of work while those not at work are classified as to the reasons for not working. The unemployed, on the other hand, are divided into those actively looking for work as opposed to those not actively looking for work; those in each category are asked about their reasons for their respective activities.

The approach provides a comprehensive and consistent system of classifying the working age population. However, the types of labor utilization included in the approach are more suited to the modern sectors and a more varied nature of labor utilization. They would have a large agricultural sector still governed by traditional production. Labor utilization would be characterized by seasonality, instability and part-time work in addition to the importance of tradition in regulating employment. Hence, the labor force approach may not adequately capture the different kinds of labor utilization in the LDCs [Myrdal, 1968; Oshima, 1971; Hauser, 1972; Oshima & Hidayat, 1974].

The problem does not lie only in the conceptual framework of the approach but also in its operationalization, a problem which may apply to any approach. Classifying individuals into categories depends on the questions used, on the instructions to enumerators or interviewers, on the actual procedures adopted by the enumerators in the field, and on the processing (that is, editing, coding and tabulating) of the data. Therefore, not only must one use the most appropriate conceptual framework to measure labor utilization but one must also exercise great care in applying the approach. The quality of the response depends on the kind of question asked, how the enumerators conduct the interview and discriminate among alternative answers, and finally, on the data processing. All these, together with the framework, will determine the measurement of labor utili-

Figure 3.1
CLASSIFICATION OF WORKING AGE POPULATION



Source: H.T. Oshima and Hidayat, "Differences in Labor Utilization Concepts in Asian Censuses and Surveys and Suggested Improvements," CAMS Discussion Paper No. 74-06 (July 1974), Diagram I, p. 8.

zation and the quality of such measurement [Hauser, 1972].

The LDCs may be confronted not only with the problem of using an inappropriate conceptual framework but also with lack of expertise and needed data processing facilities to undertake the measurement of labor utilization. Improving data quality and collection is costly. Presently, the LDCs might have to focus data collection improvement on perceived problem areas on labor utilization in need of urgent policy intervention.

Attempts at More Appropriate Measures of Labor Utilization in LDCs

Myrdal [1968] makes a comprehensive critique of the modern approach, i.e., the labor force approach, to the measurement of labor utilization based on his appraisal of the realities in South Asia. This approach captures labor utilization in developed countries where there is sufficient modernization, standardization, and rationalization of production. Any measured underutilization of labor in this approach may be expected to respond to increases in aggregate demand. Myrdal highlights the inapplicability of the approach to LDCs where it is necessary to distinguish between the concept of the labor reserve and the readily available labor surplus to better appreciate the nature of idleness in South Asian countries. The modern approach makes no distinction between the two. It measures idleness in terms of the readily available surplus as described by unemployment and underemployment. In LDCs such as those in South Asia, the labor reserve is larger than the readily available surplus and therefore the extent of idleness is greater than what is measured by the modern approach using the readily available surplus concept. The labor reserve is determined by the climatic, social, cultural and institutional environment which in LDCs propagate low labor utilization and resistance to rapid adaptation to new life and workstyles. Therefore, the problem of labor underutilization is not only the elimination of unemployment and underemployment but also that of the idle labor reserve. This implies that the full employment of labor will require a set of policies which will change attitudes and institutions with regard to employment and work.

Myrdal outlines an alternative approach to the measurement of labor utilization in LDCs to better capture the degree of idleness. The degree of idleness may be measured by the difference between the total labor input of the labor force with complete participation at an assumed standard of work duration and the labor input from

actual participation expressed as a ratio of the former. The concept of labor input from actual participation is defined by the level of participation (as measured by the ratio of the working members to the labor force) qualified by the duration of work (as measured by the ratio of man-hours of work to working members) and by labor efficiency (as measured by the ratio of output to man-hours of work).

This approach differs from the modern approach because it includes qualitative dimensions of labor utilization. Also, it views the quantitative component (level of participation) together with the qualitative components as subject to policy directed at influencing their determinants (such as the levels of living, educational institutions, customs, attitudes, and others) towards increasing productivity. In addition, the level of labor utilization assumes a given occupational distribution of the labor force, natural resources, capital resources and their allocation, and technology. Hence, policy may be directed at changing these factors to influence the extent of labor utilization.

Alternative approaches to the measurement of labor utilization had been attempted to remedy the deficiencies of the modern approach. One of these was developed in a workshop of the Organization of Demographic Associates (ODA) in Southeast Asia to capture the existing work arrangements in the region. The ODA approach involves classifying the working age population (aged ten years or more) into four categories: 1) those working for wages or profit, 2) those working outside the household without monetary payment, 3) those working inside the household (or an institution) only, without monetary payment, and 4) others. These categories are further classified into sub-categories to include more fully the different types of work presented in Table 3.1. In addition, the categories and sub-categories are subdivided into agriculture and nonagriculture. In effect, three criteria are used to classify the working age population: first, whether in the monetary or non-monetary sector; second, whether at work inside or outside the household; and third, whether in agriculture or nonagriculture [Hauser, 1972].

Oshima and Hidayat [1974] suggest different emphases of labor utilization measurement for an economy characterized by a labor shortage and that by a labor surplus. In countries beset by labor shortage, an employment status survey as used in Japan which discriminates between those with jobs and those without would give more information on the employed. In LDCs characterized by labor

Table 3.1
LABOR CATEGORIES IN THE ODA SCHEME

I. Work for Wages or Profit
   A. Work for wages
      1. only one employer
      2. more than one employer
      3. commission workers
      4. casual workers
   B. Work for profit, own account workers
      1. with paid employees only
      2. with unpaid family members
      3. with both paid and unpaid workers
      4. with not paid or unpaid workers
      5. contractor for workers
      6. rentiers (living on investment)

II. Work Outside the Household Without Monetary Payment
   A. Payment in kind
      1. unpaid servants
      2. sharecroppers
      3. apprentices and trainees
      4. others — job squatters, etc.
   B. Without any payment (exchange labor or not exchange labor)
   C. Nomadics (hunters), fishermen, etc.

III. Work Inside the Household (or an Institution) Only, Without Monetary Payment
      1. unpaid family members working on farm or family enterprise (whether or not performing household duties or attending school)
      2. unpaid family members working in putting-out system (whether or not performing household duties or attending school)
      3. both a and b type work
      4. household duties only

IV. Other (residual category)
      1. school only
      2. disabled
      3. retired and pensioners
      4. inmates of institutions (other than those included above)
      5. other

Source: P.M. Hauser, "The Work Force in Developing Areas," in Berg, Ivar (ed.), *Human Resources and Economic Welfare* (Columbia University Press, 1972), pp. 152-155.

surplus, an unemployment status type of survey would be more appropriate to capture the different dimensions of the underutilization of labor.

Hauser, a participant in the 1970 ODA workshop, designed a measure of labor underutilization in LDCs [Hauser, 1974]. His approach divides the work force into those utilized adequately and those utilized inadequately. The latter group is classified further by cause of underutilization, namely, unemployment, inadequate hours of work, inadequate income, and mismatch of occupation and education or training. Assumptions are made regarding standards against which the different types of labor underutilization may be measured. The computation procedure first estimates the underutilized categories starting with the first (open unemployment) up to the fourth (due to mismatch of occupation and education or training). Then those utilized adequately are measured as a residual out of the total work force.

This classification of labor utilization reveals better the extent of underutilization and its dimensions. Each type of underutilization may require different policy directions. Labor underutilization due to unemployment may require job creation. Similarly, underutilization as a result of inadequate hours of work may also be remedied via job creation. However, underutilizatin due to inadequate income would call for policy in human resource development and improvements in production technology. The case of mismatches of occupation and education or training would require policy rationalizing individual skill formation decisions both in the formal and informal educational sectors and manpower planning.

Hauser's classification approach does not require as much data as the labor force approach. Smith and Domingo [1977] estimate the labor utilization in the Philippines using Hauser's approach based on the 1968 National Demographic Survey. (Their estimates are compared with those of the labor force approach in the next section.)

An attempt to measure labor utilization in the Philippines without using any of the Western-developed approaches was attempted by the University of the Philippines Population Institute (UPPI) about mid-1970s. Since culture defines a society's concept of work, an ethnographic study of this concept was done in 1975 (Jocano, Alsaybar, Antonio, Guevarra and Noval, 1976). This provided the basis for designing an appropriate work force classification scheme and survey questionnaire.

The UPPI approach classifies the activities of individuals by ask-

ing each respondent to describe as freely as possible what his/her daily activities are, thereby involving a lot of probing. In effect the information on one's work activities is arrived at indirectly as opposed to the gainful worker or labor force approach which directly asks the respondent his/her status or activity. A person may then be classified under any of the following categories: (1) working, mainly or secondarily; (2) looking for work; (3) having "kutingtingin" (i.e., any activity undertaken to "pass the time")[1] done regularly and deriving income from it; (4) extending direct help to other members of the household; (5) extending indirect help to other members of the household; and (6) does not do any of the above. The first four categories compose the "work force" while the last two are considered "not in the work force."

Domingo [1975] compares the levels of analogous indicators in the Bureau of the Census and Statistics (BCS) labor force survey of May 1974 and the UPPI work force survey of 1975 (Table 3.2). A higher work participation rate, 74.5, is observed in the UPPI approach compared to that of the BCS, 52.9, and the difference is mostly accounted for by the higher female participation in the former. Also a higher unemployment figure is revealed by the indicator "per cent looking for work" in the UPPI approach (implying a lower "per cent working") than that of the BCS. Domingo explains this as a possible result of the more appropriate wording of the questions to probe the willingness of the respondent to be economically productive. This attempt substantiates the need to define the measurement of labor utilization within the cultural milieu of an economy.

An Evaluation of Philippine Employment Statistics

The sources of Philippine employment statistics after the Second World War are population and establishment censuses, and household and establishment surveys (Table 3.3). Judging from coverage alone, the survey of households, now called Integrated Survey of Households (ISH),[2] gives the longest employment time series and

1. The study came up with activities such as embroidery, carpentry, gardening, repair of household effects, household chores, studying, and recreation, among others.

2. In May 1956, the survey of households was called the Philippine Statistical Survey of Households (PSSH) which was coordinated by the National Economic Council (NEC) with the Bureau of the Census and Statistics (BCS) as primary operating agency in coopera-

Table 3.2
INDICATORS FROM THE BCS LABOR FORCE SURVEY, MAY 1974 AND UPPI WORK FORCE SURVEY, 1975
(In per cent)

	BCS			UPPI		
	Total	Male	Female	Total	Male	Female
Labor Force Participation Rate	52.9	71.9	34.2			
Work Force Participation Rate				74.5	78.1	71.1
Per cent Employed	95.2	95.7	94.3			
Per cent Working				88.1	93.0	82.9
Per cent Unemployed	4.8	4.3	5.7			
Per cent Looking for Works				11.9	7.0	17.1

Source: L. Domingo, "A New Approach to the Measurement of the Work Force," Preliminary Report, August 1975, Table 13, page 28.

the greatest number of observations, making it the major source of employment data on the Philippines and hence, the focus of evaluation in this section.

These sources of employment data have different uses depending

tion with other agencies such as the Departments of Labor, Commerce and Industry, Agriculture and Natural Resources, Education, and Health, Central Bank, and the University of the Philippines Statistical Center.

The PSSH under NEC was terminated June 30, 1958 and assumed by the Division of Surveys of the BCS since July 1, 1958.

The name of the survey was changed to Bureau of the Census and Statistics Survey of Households (BCSSH) in 1965. When the name of the BCS was changed to National Census and Statistics Office (NCSO) in 1974, the survey's name was changed to National Sample Survey of Households (NSSH).

By 1976, the survey became a joint undertaking of several government agencies with the National Economic and Development Authority (NEDA) as the coordinating agency, and the NCSO and the Bureau of Agricultural Economics and operating agencies. It was also renamed Integrated Survey of Households (ISH).

Table 3.3
EMPLOYMENT DATA SOURCES AND COVERAGE

Coverage	Survey				Census	
	Establishment			Household Month/Quarter of Survey	Population Census	Economic Census: Sectors Covered
	ASM	ASE	IQSE			
1903					(CP) March 2	(CP) Agriculture & Manufacturing
1918						(CP) Agriculture Manufacturing
1939						
1948						(CP) Industry & Services
1956	✓			(PSSH) May; October		
1957	✓			March; May; October		
1958	✓			May; November		
1959	✓			May; October		
1960	✓			October		(CPA) Agriculture
1961				May; October		(ECP) Industry & Services
1962	✓			May; October		

1963	✓			May; October		
1964				May		
1965	✓			(BCSSH) May; October		
1966	✓			May; October		
1967	✓			May; October		Industry & Services
1968	✓			May; October		
1969	✓			May		
1970	✓				(CPH) May 1, 1970	
1971	✓			March; May; August; November		(CPA) Agriculture
1972				Feb.; May; August November		Industry & Services
1973		✓		Feb.; May; August November		
1974		✓		(NSSH) Feb.; May; August November		
1975				Feb.; August	(ICPEA) May 1, 1975	All Sectors
1976		✓		(ISH) August 3rd		
1977		✓		1st; 3rd; 4th		
1978			✓	1st; 2nd; 3rd; 4th		All Sectors
1979		✓[a]	✓	1st; 2nd; 3rd; 4th		
1980				3rd; 4th	May 1, 1980	

[a]Manufacturing only.

Table 3.3 (Continued)

Titles of data sources alphabetically listed:

ASE – Annual Survey of Establishments

ASM – Annual Survey of Manufactures

BCSSH – Bureau of the Census & Statistics Survey of Households Bulletin

CE – Census of Establishments

CPA – Census of Philippine Agriculture

CPH – Census of Population and Housing

CP – Census of the Philippines

ECP – Economic Census of the Philippines

ICPEA – Integrated Census of Population and Economic Activities

IQSE – Integrated Quarterly Survey of Establishments

ISH – Integrated Survey of Hosueholds Bulletin

NSSH – National Sample Survey of Households Bulletin

on one's data needs in terms of coverage and quality. Data collection entails costs and any institution tasked to monitor an area like the labor market has to rationalize such an activity towards an adequate data collection in terms of the appropriateness of the indicators used, the quality of the data and their timeliness.

This evaluation of the ISH employment data has two stages. First is an assessment of the labor force approach which is used to measure labor utilization, followed by an examination of the quality of the data. An examination of the household survey series reveals continuing changes in the definition of concepts, sampling design, and coverage. Such changes may have rational bases for their adoption as a continuing activity for improving labor force statistics. But they make trend analysis difficult if not impossible.

Since analyses of the labor market are needed, existing data have be used. Imperfect data are definitely superior to no data at all as long as they are properly qualified. The following discussions of the household survey data on employment examine the nature and qua-

lity of this data set before using it to describe the state of employment in the 1970s.

The Labor Force Approach of the ISH Employment Statistics

As mentioned earlier, the ISH employment data is based on the labor force approach. This approach is evaluated in the preceding section. Myrdal points at its inability to capture the varied nature of labor utilization in LDCs like the Philippines and its inadequacy to focus attention and policy at labor underutilization or idleness.

Attempts at designing more appropriate approaches to measure labor utilization or underutilization (such as ODA, Hauser and UPPI schemes) in LDCs are headed toward a more detailed description of the production activities in these economies. Domingo's [1975] comparison of the UPPI Scheme and the labor force approach of the BCCSH (as the ISH was formerly called) presented in Table3.2 concludes that the latter gives a lower labor force participation rate, a higher count of relative employment, and a lower count of relative unemployment than the former. In effect, the labor force approach underestimates the extent of labor underutilization.

An alternative measure, Hauser's measure of labor underutilization, is used by Smith and Domingo [1977] on the May 1968 National Demographic Survey. They assume a 40-hour per week full-time work standard, the lowest quartile income cutoff below which insufficient income was defined, and the mean educational level per occupation as standard against which unutilized education was measured. Table 3.4 compares the resulting levels of labor underutilization using Hauser's approach with the analogous measures of the labor force approach. The correspondence between the measures of labor underutilization of the two approaches may be defined as follows: both approaches have the concept of totally unemployed; the visibly underemployed in the labor force approach may be taken to correspond to Hauser's underutilized labor due to inadequate hours of work; and the invisibly underemployed may roughly match the underutilization due to inadequate income and due to mismatch in occupation and education/training. For May 1968, the Hauser approach yields 55.2 per cent fully utilized proportion of the labor force as a residual after removing the underutilization of 8.2 per cent unemployed, 12.8 per cent due to inadequate hours of work, and 23.8 per cent due to mismatch between occupation and education/training. (There is no estimate for underutilization due to inadequate

Table 3.4
COMPARISON OF HAUSER AND THE BCS LABOR FORCE MEASURE OF LABOR UTILIZATION MAY 1968

Labor Utilization	Hauser Approach May 1968[a]	BCS Labor Force Approach May 1968[b]	Employment Status
Total Labor Force	100.0%	100.0%	Labor Force
		92.2	Employed
Utilized Inadequately			
By Unemployment	8.2	7.8	Unemployed
By Hours of Work	12.8	12.7	Visibly Under-employed
By Income		11.9	Invisibly Under-employed
By Mismatched Occupation and Education/Training	23.8		
Utilized Adequately	55.2	67.6	

[a]From Table 6 of P. Smith & L. Domingo, "The Social Structure of Underutilized Labor in the Philippines: An Application of Hauser's Labor Utilization Framework," *PRBE*, Vol. XIV, No. 2. (December 1977), p. 59.

[b]From Series No. 25 of the *Bureau of Census and Statistics Survey of Households Bulletin.*

income for the total sample although there are such measures for male heads and wives at 22.4 per cent and 29.5 per cent, respectively.) The BCS approach divides the labor force into the employed and the unemployed only. Both the visibly and the invisibly underemployed are counted under the employed. Hence, for May 1968, the employed came to 92.2 per cent of the labor force. If we were to do a similar computation of labor underutilization as in the Hauser scheme using the BCS data, one gets a slightly lower unemployment

of 7.8 per cent, an almost the same proportion of 12.7 per cent of underutilization due to inadequate hours of work, and 11.9 per cent underutilization due to inadequate income. (Note that there is no counterpart measure for underutilization due to mismatch between occupation and education in this approach.) These add up to 32.4 per cent underutilization leaving 67.6 per cent of fully utilized labor force, a much lower figure than the BCS measure of 92.2 per cent employed.

This comparison helps to emphasize that the count of the employed in the labor force approach has to be qualified by the extent of underemployment and other sources of labor underutilization which an alternative approach like that of Hauser's may better reveal. Smith and Domingo also pinpoint the need to further classify the labor force according to other socioeconomic characteristics to define their relative underutilization and indicate more clearly the needed policies. Oshima [1971] criticizes the inadequacy of labor force surveys in capturing seasonality of work in economies characterized by monsoon agriculture. He roughly estimates the degree of underutilization of farm labor in the Philippines to be at least one-third of the year based on the October 1966 survey data.

All these different characterizations of labor utilization or underutilization use different indicators and definitions or cut-off points on which the numerical estimates depend. Hence, the important point of the preceding discussion is the need for this kind of more thorough description of labor utilization through time based on constant assumptions on concepts and cut-off points to serve as basis for policy making.

The NCSO surveys of households generated and published a wealth of labor information from 1956 through the 1970s. Data processing problems have prevented NCSO from publishing the same breadth of data in the 1980s as in the past. The data generated by these surveys would enable one to estimate these alternative characterizations of labor underutilization. The problem is the need for data other than those published. Since NCSO does not make reports on these dimensions of labor utilization, others who want to do so have to seek such needed data from NCSO which may take so long in granting data requests from independent researchers given its own backlog in data processing. Most government bureaucrats and politicians quote only the major indicators of labor utilization, namely employment and unemployment which are also what the general public gets to know. Unless in-house government research provides

a more thorough description of labor utilization then even policy making may miss the different dimensions of the employment problem.

The Quality of the ISH Employment Statistics

The employment data series of the mid-1950s to mid-1960s based on the household surveys had been evaluated with regard to sampling, response and enumeration errors, and the use of an incorrect (lower) population base to blow up the survey results [Ruprecht, 1966, Gupta, 1969]. Since this study focuses on employment in the 1970s, assessment of the data set is concentrated on this period. In the main, the quality of the series will be evaluated in terms of its consistency in population coverage, reference period, date of data collection and definitions of labor force activities/status to guide interpretation of data changes from one period to another (Table 3.5).

Population Coverage. The series is consistent in its coverage of non-institutional population, i.e. persons found in households and its exclusion of those in diplomatic and consular residences, ships, asylums, hospitals, penitentiaries, army barracks, hotels and other similar institutions. Its main focus was the population aged 10 years and over for the period May 1956 to August 1976. Then this was changed to the population aged 15 years old and over starting in the third quarter of 1976 up to the present. The change in the working population base makes the labor force count smaller due to the non-inclusion of labor force members who are 10 to 14 years of age.

The minimum age for labor force participation (LFP) is influenced by the production environment and the state's commitment to education in a society. Usually, LDCs which are predominantly agricultural tend to have a younger minimum age of LFP compared to DCs which are more industrialized and with a compulsory high school education guaranteed by the state with sanctions. The DCs during their less developed stage and most LDCs use 10 years old while the DCs during their more developed stage use 15 years old.

The change in minimum age in the employment data in 1976 was rationalized by the need to conform to the Labor Code's legal minimum employable age of 15 years old (Article 139). It is not clear why the statistics on employment should conform with this legally defined minimum employable age. The existence of a law does not remove nor prevent the employment of individuals younger than 15 years old. Hence, there exists an even greater need to monitor

Table 3.5
LIST OF DISCUSSED CHANGES IN THE SURVEY OF HOUSEHOLDS, 1956 to 1980

AREA OF CHANGE	DATE OF CHANGE									
	Oct. 1956	May 1963	May 1965	Oct. 1968	Mar. 1971	Aug. 1975	3rd Qtr. 1976	1st Qtr. 1977	3rd Qtr. 1977	4th Qtr. 1978
Population Coverage							✓			
Reference Period							✓			
Date of Survey							✓			
Definition of Employment Status										
A. Work							✓			
b. Unemployment				✓			✓	✓	✓	✓
Classification Scheme										
A. Industry		✓					✓		✓	
B. Occupation	✓								✓	
C. Region			✓			✓	✓			
Sampling Design			✓		✓		✓		✓	

this age group's participation in the labor market.

Reference Period. From May 1956 to August 1976, the reference period was the week preceding the survey interview. However, by the third quarter of 1976, this was changed to the calendar quarter preceding the survey visit. This change may be interpreted to be in the spirit of modifying the labor force approach to better measure labor utilization in an economy where work may be seasonal, irregular or unstable. The three-month reference period would more accurately reflect labor utilization than a one-week period.

The effects of this change on the count of the labor force by employment status are compared for five quarters during the period 1976 to 1978 (Table 3.6 and 3.7). The absolute size of the population base would not be affected. That of the labor force and those not in the labor force are neither expected to be systematically affected by this change. The quarter-based labor force may be greater or less than that of the week-based depending on the seasonal character of the LFP for the periods being compared. However, in the case of the employed and the unemployed, the quarter-based employment figure is always larger than the week-based (by an average of 664 thousand) and vice-versa (by an average of 638 thousand) in the case of the unemployed (Table 3.6).

In terms of the proportion of the employed to the labor force, th quarter-based figures are 1.1 to 9.5 or an average of 4.0 percentage differential between the quarter- and the week-based figures for the unemployed is as high as -66.8 per cent in the case of the first quarter of 1978 (5.2 per cent: 14.7 per cent).

The change in reference period from one week to one quarter understandably increases the relative size of the employed because of the greater probability that one would have worked for at least an hour (as the activity of work is established by the interviewers in the surveys) during a period of three months compared to a week's period. This result may be considered an improvement in the measurement of labor utilization. But data users should note that the pre-1976 week-based figures should not be considered as a continuous series with the post 1976 quarterly-based data set.

Other changes in definitions of employment status which were adopted in 1976 could have resulted in larger relative counts of the employed (these changes are discussed subsequently). These changes bias the measures and are likely impossible to isolate.

Regularity of data collection. During the period 1956 to 1969, the household surveys were undertaken bi-annually, mostly in the

Table 3.6
EMPLOYMENT STATUS OF PERSONS 15 YEARS OLD AND OVER
BASED ON 'PAST WEEK' AND 'PAST QUARTER' REFERENCE PERIODS[a], 1976 to 1978
(In thousands)

Employment Status	Persons 15 years old and over									
	1976		1977				1978			
	Third Quarter ISH		Third Quarter ISH		Fourth Quarter ISH		First Quarter ISH		Second Quarter ISH	
	Past week	Past quarter	Past week	Past quarter	Past week	Past quarter	Past week	Past quarter	Past week	Past quarter
Household population 15 years old and over	24,837	24,837	25,787	25,787	26,048	26,048	26,307	26,307	26,587	26,587
In the labor force	14,776	15,017	14,595	15,002	14,903	14,993	16,387	15,386	16,368	16,757
Employed	13,841	14,238	13,266	14,334	13,763	14,323	13,982	14,588	15,011	15,699
Unemployed	935	780	1,328	668	1,140	671	2,405	798	1,357	1,058
Not in the labor force	10,061	9,820	11,192	10,785	11,145	11,055	9,920	10,922	10,219	9,829

[a] 'Past week' and 'past quarter' refer to the calendar week and calendar quarter preceding the date of survey visit, respectively.
SOURCE: NCSO, *Integrated Survey of Households Bulletin*, Series No. 48, Table A, p. xviii for 1976 and 1977 and Series No. 49, Table a, p. xvii.

Table 3.7
COMPARATIVE STATISTICS ON EMPLOYMENT STATUS OF PERSONS 15 YEARS OLD AND OVER BASED ON "PAST WEEK" AND "PAST QUARTER" REFERENCE PERIODS, 1976 to 1978

Employment Status	Percentage Differential of the Quarter-based Relative to the Week-based Figures[a]					Percentage Distribution of Population by Employment Status									
						1976		1977				1978			
	1976	1977		1978		Third Quarter		Third Quarter		Fourth Quarter		First Quarter		Second Quarter	
	3rd Quarter	3rd Quarter	4th Quarter	1st Quarter	4th Quarter	Past Week	Past Quarter	Past Week	Past Quarter	Past Week	Past Quarter	Past Week	Past Quarter	Past Week	Past Quarter
Household Population															
15 years old & over	0	0	0	0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In the Labor Force	1.6	2.8	0.6	(6.1)	2.4	59.5	60.5	56.6	58.2	57.2	57.6	62.3	58.5	61.6	63.0[b]
Employed	2.9	8.0	4.1	4.3	4.6	93.7	94.8	90.9	95.5	92.4	95.5	85.3	94.8	91.7	93.7
Unemployed	(16.6)	(49.7)	(41.1)	(66.8)	(22.0)	6.3	5.2	9.1	4.5	7.6	4.5	14.7	5.2	8.3	6.3
Not in the Labor Force	(2.4)	(3.6)	(0.8)	10.1	(3.8)	40.5	39.5	43.4	41.8	42.8	42.4	37.7	41.5	38.4	37.0

[a] (Quarter-based figure – week-based figure) ÷ (week-based figure) x 100.
[b] Employed-unemployed distribution of the labor force.
SOURCE: Based on Table 3.6.

months of May and October (Table 3.3). Starting in 1971, the survey has been conducted quarterly per year and this may be interpreted to be an improvement in the data's ability to capture the seasonality of labor force participation and work although it introduces another source of discontinuity in the time series. However, the reference period remained the week preceding the survey interview until 1976 when it was changed to the calendar quarter.

What seems to be a complete coverage of the respondents' work activities for the full year resulting from the quarterly surveys based on quarterly reference periods is only as good as the quality of the memory or recall of their activities for the past three months and it is likely to be bad. Hence, a better alternative may be to collect the data more often, as on a monthly basis, but which would be costlier.

Date of survey. From May 1956 to Agusut 1976, the data referred to the survey week, i.e., the calendar week, Saturday to Sunday, preceding the visit of the interviewer. Since not all respondents were interviewed in the same week of a given month and year, there was no common reference survey week for the data of a given period. In the 1970s, the collection of data usually started on the Monday closest to the 21st day of the survey month. If seasonality exists on a weekly basis then the data would be so biased. When the reference period was changed to a calendar quarter, the collecton was done in the month following the reference quarter. In this case, the date of collection does not matter since the data collected refer to a common period, the past quarter, as long as recall does not vary within the 30-day period of the interview.

Definitions of employment status.[3] A consistent definition of the employed in terms of doing work was used from May 1956 to August 1976, to quote:

(a) "At work: those who did work for pay or profit or worked without pay on the farm or business enterprises operated by a member of the same household related by blood, marriage or adoption;

(b) With job but not at work: those who had a job or business but did not work because of temporary illness, vacation, strike or other reasons. Also included are persons who were supposed to report for work or start the opera-

3. The definitions were taken from the explanatory texts of the Integrated Survey of Households Bulletin issues and the survey questionnaires.

> tion of a farm or business within 30 days from the date of interview."

However, starting with the quarter-based survey of the third quarter of 1976, work around the house as defined below was included in the definition of work:

> "In addition . . . any activity that a person does during the reference quarter in relation to minor activities in home gardening, raising of crops, fruits, etc., raising hogs, poultry, etc., fishing for home consumption and manufacturing for own use are also considered work. However, during the reference quarter, there must be some harvest in the case of home gardening, raising of crops, fruits and nuts and gardening of wild vegetables; animals disposed of (sold, consumed, bartered or given away) or some catch in fishing in order that these activities will be considered work. These activities were considered work in as much as earnings were derived from them."

This expansion of the definition of work likely contributed to the relatively larger size of the employed observed during the subsequent survey periods.

Another change in 1976 was a rephrasing of the probing question to define the unemployed. The unemployed (excluding the discouraged workers)[4] have always been defined as "those who were reported as wanting and looking for work." It was considered necessary that a person must be sincere in desiring work and/or serious about working. From October 1968 to August 1976, the question asked to determine one's desire for work or seriousness in finding work was whether a person was "wanting and looking for work on a full-time basis" or "wanting and looking for full-time work." This question was reworded four times from 1976 to 1978 as follows:

1. Third quarter, 1976 — "Did he want work *throughout the quarter*?"
2. First quarter, 1977 — "Did he want to work *each week throughout the past quarter*?"
3. Third Quarter, 1977 — "Did he want to work *most of the time/each week or on a continuing basis starting anytime*

4. "Those who were reported as wanting full-time work but not looking for work because of the belief that no work was available or because of temporary illness, bad weather, or other valid reasons."

during the past quarter?"

4. Third Quarter, 1978 – "Did he want to work *anytime during the past quarter?"*

The first three rewordings relative to the fourth are more strict probing questions to identify the unemployed and may have resulted in a lower count of the relative size of the unemployed during these survey periods.

These changes in definitions on the average would increase the employment rate measure and decrease that of the unemployment rate. These biases also make it difficult to interpret these rates as a continuous time series in the 1970s.

Classification schemes. The classification of labor force members based on such characteristics as industrial affiliation, occupation and regional location was revised sometime during the period under consideration. The industrial classification was revised three times; the industries were regrouped in May 1963, 3rd quarter of 1976 and 3rd quarter of 1977. In the case of the occupational classification, there were some relabeling of groups in May 1969 and 3rd quarter of 1976; by the 3rd quarter of 1977, the following groups: (1) miners, quarrymen and related workers, (2) workers in transport and communication occupations, (3) craftsmen, production process workers and related workers, and (4) stevedores and related freight handlers and laborers n.e.c. were all regrouped under production and related workers, transport equipment operators and laborers. The regional classification was revised substantively in August 1975 when the number of regions was increased from ten to eleven, and in the 3rd quarter of 1976 when it was increased to twelve.

These also introduced discontinuities in the series. Making the time series consistent with respect to a given classification becomes cumbersome if not impossible when the values of sub-categories are not easily isolated without having to go back to the computer printouts of an intermediate data processing step.

Summary. This limited evaluation of the quality of the employment data from the household surveys indicates serious changes, especially in 1976, which make the data series discontinuous in the 1970s. The possible biases arising from these changes are evaluated to serve as the basis for qualifying the data set. However, it is important to point out the limited nature of the evaluation. For one, the evaluation leaves out other problems of concepts used, timing and operationalization of employment data collection discussed in the

literature. Nothing is said about enumeration errors which can be serious depending on the quality of training and commitment of the interviewers, and response errors which are influenced by the respondents' intelligence and sincerity. Nothing is done on the changes in sampling design in May 1965, March 1971, third quarter 1976, and third quarter 1977, and other statistical methodology revisions, on changes in assumptions of the blowing-up procedure and on changes in the data processing.

What this evaluation attempts to convey is the need to systematically assess the data collection and, given the country's cost constraints, to arrive at the best approach/system and implement it as much as possible in a one-shot overhauling process.

Chapter 4

THE POLICY ENVIRONMENT OF EMPLOYMENT IN THE 1970s

This chapter provides a discussion of the policy environment in the decade of the seventies in an attempt to explain the employment situation during the period. This study is not a complete discussion of the mix of government policies and employment environment specific to the seventies. However, it could provide a starting point for policy mapping which can be useful in analyzing the directional impact of the totality of government policy measures on a stated economic goal such as employment generation. This approach to the analysis of the employment situation in the Philippines yields results which can be immediately useful for policy purposes. Through such an exercise gaps as well as inconsistencies in the constellation of government policies as they affect employment, may be identified and hopefully open up possible areas for government action.

In the attempt to explain the employment situation in the seventies through policy mapping, the object is not to determine the precise magnitude or level of employment generated or discouraged by particular policies, but merely the directional impact of the policies, taken individually and jointly, on employment. On this basis, it is possible to construct the employment scenario for a particular year and from year to year given the changes in the mix of government policies over time and its corresponding effects on the employment level.

Effects of government policies on the level of employment are here categorized as either direct or indirect to facilitate consideration of the principal objectives behind particular policy measures, i.e., those that are meant to affect employment directly, and those that do so, whether intended or not, through their influence on other economic variables. Policies which are deliberately used to alter the outcome of a given labor market situation are considered as having direct effects on employment. Examples of these include the legislations supporting overseas employment, the apprenticeship programs and programs favoring employment of certain groups ("rebel returnees", deactivated paramilitary personnel, etc.). On the other hand, policies directed toward objectives other than employment generation are considered as having indirect effects on employment. The government's industrialization policies come under this category,

although it is usual to find employment generation cited as an objective of such policies in official documents. Incomes (minimum wage) policies and similar legislations to protect the rights of workers are also included here. They indirectly affect employment through their effects on the level of output, the output mix, technology and relative factor prices.

The directional impact of policies on the level of employment may be positive, negative or neutral. On theoretical grounds it is possible to predict *a priori* what the likely effect of a particular policy is on the employment level. Policies to increase output or to encourage investments in new economic activities tend to have a positive effect on employment. On the other hand, measures which cheapen capital relative to labor have a negative effect on employment. Policies which encourage the use of capital-intensive technology may reduce employment. A particular policy may be potentially employment-creating to the extent that it encourages expansion of output in one sector; at the same time it could serve to limit or discourage employment in the same sector through the nature of the incentives employed to promote that sector.

The first section of this chapter is a general discussion of the policy environment in the seventies with emphasis on the main direction of government policy and the stimuli generating the observed policy responses. The next section zeroes in on particular measures implemented to increase employment. This is followed by a discussion of factors that limit employment growth. These factors are explained in terms of other government policies which tend to contradict employment-creating policies as well as the nature of the policies themselves which are perceived to be operating in the direction of less rather than greater employment generation. The last section discusses the prospects for employment generation in the Philippines and poses some problems which merit consideration in the formulation of employment policies.

The Over-all Policy Environment in the 1970s[1]

The seventies was a period characterized by an increased importance attached to development planning relative to the two earlier

1. The historical content of this section and the sections that follow is drawn largely from government publications, principally the annual reports (1970-1979) of the Central Bank.

decades. Providing the situation conducive to policy planning and implementation was the centralization of the decision-making process in the executive branch owing to the declaration of martial law in 1972 and which formally extended up to January 1981. The goals emphasized were the attainment of a high and sustained rate of economic growth, the promotion of self-sufficiency in food, stability in prices, improved capacity for domestic resource mobilization and a sound balance of payments position. The promotion of social development through the creation of productive employment opportunities and reduction of income disparities has likewise been mentioned as an objective [NEDA, 1978]. While not reflected in the various development plans in existence since 1966, the relative priority accorded each of the above goals is deducible from the actual implementation of specific government programs as well as from the relative concern and speed, if not decisiveness, with which government has responded to problems of both economic and social concern.

It seems fairly clear that the Philippines, being a developing economy, is still preoccupied with the goal of increasing, if not merely sustaining, its rate of economic growth. To achieve this, official endorsement has been given the strategy of balanced agro-industrial development, trade diversification and rationalization. In agriculture, this strategy took the form of production intensification programs especially for rice and other food crops. While in industry, various policy measures were undertaken to promote the shift from mere packaging and processing of import substitutes and raw materials (as was the case in the fifties and sixties) to actual production of such goods, further processing of raw materials, and the exportation of non-traditional exports and manufacture. In effecting this shift which appears to have been influenced by the general acceptance in official circles of the economic shortcomings of the previous import substitution strategy, the government has utilized a variety of policy instruments to raise the necessary financial resources and to direct these resources to identified priority areas. Foreign investments have been consistently encouraged to augment domestic capital, and together with the latter are provided with a broad range of tax incentives. The financial system has undergone reforms intended to put it in a better position to finance priority programs. Borrowing from external sources has also been increasingly resorted to especially in the latter half of the seventies not merely to finance budgetary deficits but also to cover the foreign exchange cost of a number of

development projects.

Economic policy-making in the Philippines is guided by the idea that the private sector is the medium for economic progress and the prime mover of development [NEDA, 1978]. As such government support for private sector activities has been continually extended through various measures which influence the structure of economic incentives. But while private enterprise has been heavily relied upon to play an active role in the growth of the economy, the government sector has not restricted itself to a supportive role. In more recent years, the government has actually engaged itself in activities which are capital-intensive, pioneering, high-risk and vital to the national economy, either by providing long-term financing or by entering into joint ventures with the private sector.

In 1970 the Central Bank (CB) embarked on a stabilization program in response to two de-stabilizing developments: an inflation triggered by the excessive electoral spending in 1969, and the maturing of the country's foreign obligations. This program included the floating of the foreign exchange rate (CB Circular 289 dated 21 February 1979) to dampen imports and stimulate exports, as well as the restructuring of a substantial portion of maturing foreign obligations and the availment of fresh foreign credits to augment the country's foreign exchange reserves. On the domestic front, the program meant a policy of monetary and fiscal restraint in order to contain inflationary pressures. The program was short-lived however when in the succeeding years, a combination of natural calamities, global food shortages and oil price increases elicited an expansion in fiscal and monetary aggregates.

In 1971, supervised credit programs allotting funds for agricultural and industrial ventures were launched. The government also embarked on a program of increased spending in 1972 in order to stabilize food supply after the dislocation caused by the July-August floods. With the declaration of martial law in September 1972, land reform in rice and corn areas was decreed, Tariff reforms were instituted in the same year to simplify the tariff rate system, raise additional revenues, rationalize tariff protection and reallocate available resources from investment in non-essentials to investment in essential and exportable goods. Changes in tariff rates also served as an instrument to implement the government's commitments to its trading partners as well as to obtain concessions from other countries.

In 1973 a surplus was registered in the country's balance of pay-

ments owing to an expansion in the demand for the country's traditional exports. Industrial activity picked up as the sharp increase in national income generated a strong domestic demand. Recessionary tendencies however were felt in the next two years as the price of imported oil rose and balance of payments problems developed. During this period (1974-1975), the monetary authorities allowed liquidity to further expand in order to counter recessionary pressures. Fiscal policy was similarly expansionary focusing on agriculture and construction, the latter becoming a growth sector as a result of the infrastructure development thrust of the government. It was also in this period when private construction firms, with government support, began to take advantage of the increased demand for construction activities in the Middle East countries which were enjoying a trade surplus. The policy to promote tourism through a set of fiscal incentives because of its foreign exchange earning potential likewise contributed to the growth of the construction sector in 1974-75.

The direction of economic policy for the rest of the decade (1976-1979) remained essentially the same: fiscal and monetary policies were utilized in one direction or another depending on the need to spur growth, encourage capital formation, contain inflation and improve the country's trade position. In the main, however, they have been expansionary, tending to fuel inflation and yet with little success in stimulating production and employment. In general the preferred areas where financial resources have been directed are exports, agricultural production and infrastructure development. Yet a significant amount have also flowed into activities whose contribution to production have been at best ambiguous. Higher interest rates on savings and loans were prescribed in 1976 through a set of CB circulars with the intention of making more financial resources available for long-term investments. Liberalization of rules and regulations governing the rediscounting of eligible export papers, especially of non-traditional products was done in 1977. While increasing interest rates on savings and loans, the CB however retained preferential interest rates on a selective basis. The interest rate reforms in 1978 further lowered bank lending rates for the supervised credit programs in rice and corn. They also included the standardization of the rediscounting and bank lending rates for other preferred activities and increased the rediscounting ceiling of commercial banks for non-traditional export and small-scale industries financing. In 1979, the situation of increased import payments arising from another oil price hike was met by policies to strengthen the export sector, primarily

through measures making more credit resources available to this sector via the CB rediscount window. The deposit and lending rate ceilings of banks and non-bank financial intermediaries with quasi-banking functions were raised by two percentage points across-the-board in an effort to align domestic interest rates with those in the international market and thereby discourage capital outflows and attract more bank deposits.

Employment generation was declared a state policy in the seventies owing principally to the political and social dimensions of the employment problem. Accordingly, all government policies and programs have sought justification by reference to their potential contribution to employment generation. Because employment may only be promoted in an atmosphere where productive economic activities proceed uninterruptedly, labor legislation has placed emphasis on regulating labor-management relations. This includes measures to ensure speedy settlement of labor disputes, the illegalization of all forms of work stoppages in so-called vital industries, and the representation of labor in government policy-making bodies under the principle of tripartism.

In the seventies, there were also several presidential decrees and similar laws whose aim was to protect the interests of those who are employed either by providing better conditions of employment or preventing or minimizing the erosion of real incomes. The success of these laws in attaining their stated objectives is limited however by the existence of a still large number of unemployed and underemployed which continue to exert a downward pressure on wages. Despite government efforts to increase employment in the seventies, the unemployment level (defined to include underemployment) has shown little improvement (Table A-3). This is indeed unfortunate considering that the inflationary policies of the government may have contributed in no small degree to the rapid deterioration of labor's real wages. The succeeding sections, will concentrate on specific policy measures which have affected labor absorption in the seventies and attempt to explain how they may have influenced the employment situation.

The general and specific policy measures adopted in the seventies are listed in Table A-1 of the Appendix with their respective dates of adoption or effectivity and their legal bases. The directional effects of these different policies on employment are noted in the relevant columns. These effects may be direct or indirect, with indirect effects working themselves through output expansion, relative

factor prices or technology. Policies without any entry in the direct/indirect effect columns imply neutral impact on employment. The discussions in the succeeding sections will time and again refer to Table A-1.

Policies Contributing to Employment Generation

This section attempts to explain labor absorption in the seventies in terms of the various government policy measures enacted in the period to expand output, increase labor use and streamline the institutional framework in support of employment-generation.

Policies to Expand Output

In general, employment generation may be viewed as proceeding from the growth of output. As an objective of public policy, employment generation is in fact expressed as an additional benefit derived from increased production. Thus, the pattern of labor absorption in the economy may be traced from the growth of output in its various sectors according to the degree in which the growth of productive activity in such sectors has been promoted.

Since an investment program is essential to the attainment of the economy's growth objectives, the government has placed increasing emphasis on providing the climate favorable to investment activity. Both broad-ranging and sector-specific policies have been formulated to encourage capital formation in the various sectors of the economy. [See Table A-1, (I-III)].

The general sectors of the economy are given in Table 4.1 with the corresponding government policies and programs intended to expand output in each of the sectors. The duration of effectivity of the policies and programs is also given. It is evident that the manufacturing sector has been the target of most development policies and programs. Industries in this sector have been granted investment incentives since the late sixties. These investment incentives are contained in three legislations, namely: the Investment Incentives Act (IIA, 1967), the Foreign Business Regulation Act (FBRA, 1968) and the Export Incentives Act [EIA, 1970]. The incentives are mainly in the form of tax privileges granted through the Board of Investments (BOI) and are designed to attract firms into areas considered "preferred" on the basis of annually prepared investment priorities plans.

After the imposition of martial law in 1972, amendments to the BOI incentives were introduced through PD 92 in January 1973,

Table 4.1
POLICIES AND PROGRAMS AFFECTING EMPLOYMENT THROUGH OUTPUT BY MAJOR ECONOMIC SECTOR AFFECTED AND PERIOD OF EFFECTIVITY, PRE-1970 TO 1979

	Policy/Program By Sector	Pre-1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
	AGRICULTURE											
1.	Investment Incentives Act (IIA)	+	+	+	+	+	+	+	+	+	+	+
2.	Preferred Interest Rates			+	+	+	+	+	+	+	+	+
3.	Agricultural Investment Incentives Act (AIIA)									+	+	+
4.	Corporate Farming Program						+	+	+	+	+	+
	MANUFACTURING											
1	Investment Incentives Act (IIA)	+	+	+	+	+	+	+	+	+	+	+
2.	Foreign Business Regulation Act (FBRA)	+	+	+	+	+	+	+	+	+	+	+
3.	Export Incentives Act (EIA)		+	+	+	+	+	+	+	+	+	+
4.	Local Content Programs											
	Progressive Car Manufacturing (PCMP)					+	+	+	+	+	+	+
	Progressive Motorcycle Manufacturing (PMMP)						+	+	+	+	+	+
	Electronics Local Content (ELCP)							+	+	+	+	+
	Progressive Truck Manufacturing (PTMP)									+	+	+
5.	Preferred Interest Rates	+	+	+	+	+	+	+	+	+	+	+

6.	Small and Medium Industry Development											
	IGLF Financing	+	+	+	+	+	+	+	+	+	+	+
	DBP Financing					+	+	+	+	+	+	+
	Preferred Interest Rates						+	+	+	+	+	+
	Tax Privileges	+	+	+	+	+	+	+	+	+	+	+
	Technical Assistance											
	MASICAP					+	+	+	+	+	+	+
	SBAC							+	+	+	+	+
	MMBIDP										+	+
	MINING AND QUARRYING											
1.	Investment, Incentives Act (IIA)	+	+	+	+	+	+	+	+	+	+	+
2.	Foreign Bus. Regulation Act (FBDA)	+	+	+	+	+	+	+	+	+	+	+
3.	Export Incentives Act (EIA)		+	+	+	+	+	+	+	+	+	+
4.	Preferred Interest Rates										+	+
	CONSTRUCTION											
1	Tourism Investment Program						+	+	+	+	+	+
2.	Tax Privileges						+	+	+	+	+	+
	SERVICES											
1	Tourism Investment Program						+	+	+	+	+	+

Legend: IGLF – Industrial Guarantee and Loan Fund
DBP – Development Bank of the Philippines
MASICAP – Medium- and Small-Scale Industries Coordinated Action Program
SBAC – Small Business Advisory Centers
MMBIDP – Metro Manila Barangay Industries Development Program

giving priority to exports of manufactures. In June 1974, PD 485 extended additional incentives to firms registered under the EIA. Subsequent additions to available incentives for EIA-registered firms were made in 1979 through PD 1646. [See Table A-1, (I.E)]. Incentives previously enjoyed exclusively by IIA-registered firms (such as accelerated depreciation and deduction of pre-operating and organizational expenses from taxable income) were extended to those covered by the EIA. PD 1646 also provided for the setting up of overseas trade offices, and projects not included under the Export Priorities Plans (EPPs) were allowed by the BOI to register under the EIA and avail of the incentives provided that 50 percent of production is to be exported. In addition to all the foregoing, export industries have been made to enjoy credit incentives through preferential interest rates since 1974, while financial institutions supporting export activities have been entitled to rediscounting privileges at liberal terms since 1968.

Within the past decade efforts to increase manufacturing output through the promotion of greater backward linkage found expression in various local content programs. These are: the Progressive Car Manufacturing Program (PCMP) which started in 1973, the Progressive Motorcycle Manufacturing Program (PMMP) in 1974, the Electronics Local Content Program (ELCP) initiated in 1975, and the Progressive Truck Manufacturing Program (PTMP) in 1977. These programs have as their principal objectives the conservation of foreign exchange through increased local production and the generation of exports, especially in the context of the complementation program of the ASEAN (Association of Southeast Asian Nations).

Small and medium industries have been the object of government support even before the seventies. As can be gleaned from Table 4.1, these industries have been accorded credit privileges through the Industrial Guarantee and Loan Fund (IGLF) since 1952. Cottage industries registered with the National Cottage Industries Development Authority (NACIDA) have been given tax incentives since 1963. Full exemption from percentage and sales taxes and taxes on imported machinery was allowed NACIDA-registered firms up to 1972, after which only partial exemption was permitted. In the seventies, support for small and medium industries increased as indicated by the liberalization of credit mainly through interest rate restrictions and special financing programs. Since 1973, the Development Bank of the Philippines (DBP) has been financing small and medium industries from a special fund put up for that purpose. As an encourage-

ment for private banks to lend to small scale industries, loan papers for financing these types of activities have been eligible for rediscounting since 1971. Lower bank lending rates for small scale industries have been in effect since 1974 when the rate was pegged to 12 per cent per annum. The interest rate adjustments in 1978 further favored export-oriented small-scale industries which were allowed to borrow at 10 per cent. In 1979, non-export-oriented small-scale and cottage industries were included in the list of activities entitled to financing at the preferential 10 per cent interest rate. Contemporaneous with the attempts to provide increased financial assistance to small industries was the setting up of the necessary institutional support for small industry development. In 1974, the creation of the Department of Industry (later called the Ministry of Industry then merged with the Ministry of Trade) through PD 488 provided for the organization of the Commission on Small and Medium Industry (CSMI) to "promote, assist and develop small and medium scale industries, particularly in the rural areas." Various technical assistance programs exist under the said commission. These include the Medium and Small-Scale Industries Coordinated Action Program (MASICAP) which was launched in 1973, the Small Business Advisory Centers (SBAC) initiated in 1975, and the Metro Manila Barangay Industries Development Program (MMBIDP), started in 1978. The MASICAP assists entrepreneurs in the preparation stage of projects; SBAC provides post-operations extension services in such fields as management, marketing and finance; while MMBIDP assists in the identification and development of economic projects among the urban poor in the depressed areas of Metro Manila.

Investments in the agricultural sector were likewise encouraged through the IIA. The tax incentives provided through this law were complemented by the various supervised credit programs of the government in such areas as rice, corn, feedgrains, livestock, poultry and vegetables. In addition, a corporate farming program was initiated in 1974 through General Order No. 47 (G.O. 47). This law enjoined all domestic corporations and partnerships with at least 500 employees to participate in the government's food production programs by directly providing for the rice and/or corn requirements of their employees through the operation of corporate farms. Furthermore, G.O. 47 authorized corporations without existing landholdings to lease public agricultural lands or idle private agricultural lands. PD 717 (1974) required all lending institutions, whether public or private, to allocate at least 25 per cent of their loanable funds to the

agricultural sector. The CB has also required that banks invest at least 75 per cent of their total deposits within the region where they are located, with 60 per cent of such amount earmarked for investment in agricultural and export industries. In 1977, the government decreed an Agricultural Investment Incentives Act (AIIA) which emphasized investments in agriculture supported by fiscal privileges presumably in support of the industry-dispersal objective.

The other sectors which have been targets of the various output-increasing policies of the government are mining and quarrying and the construction and services sectors. Similar to agriculture, mining and quarrying enjoyed preferential loan terms, and banks extending financial support to mining firms were granted rediscounting privileges. Tax holidays were also granted BOI-registered mining firms and businesses in the mineral-based sector of manufacturing. The measures increasing output in the construction and services sectors were the various infrastructure programs intended to support productive activities in manufacturing and agriculture as well as the tourism investment program which was directed at earning foreign exchange for the economy. It was in 1974 when fiscal incentives were given to the tourism industry through PD 535, and 1977 when the construction sector received fiscal incentives by virtue of PD 1167.

In summary the extension of both fiscal and credit privileges to firms and industries in identified priority areas characterized the government's efforts at encouraging capital formation and inducing greater output. From a comparative viewpoint, the BOI incentives appear to be the most comprehensive in coverage. As such, these incentives constitute a potentially influential set of measures by which the government may be able to affect the direction and pace of industrialization as well as the structure and level of employment. The broadest in coverage among the investment incentives laws is the IIA which declares it a state policy to develop agricultural, mining and manufacturing industries, to increase exports, provide more employment opportunities, welcome and encourage foreign capital to establish pioneer enterprises that are capital-intensive, and to utilize a substantial amount of domestic raw materials.

Operationally all industrial activities not included in the government's list of "overcrowded" industries (i.e. those with a capacity deemed sufficient to cover domestic and external demand) are candidates for inclusion in the yearly investment and export priorities plans. On this basis, practically three-fourths of the industrial sector in terms of value of output is either explicitly or potentially eligible

for BOI incentives [IBRD, 1976].

The fiscal incentives given by the government to encourage investment in agriculture, construction and tourism are essentially similar to those granted under the IIA and the EIA [See Table A-1]. There is also a pronounced similarity in the method of financing the various programs, i.e. through liberal credit, with the lending banks having access to the CB rediscount facility at subsidized rates. While priority sectors enjoy relatively lower interest rates on their borrowings, the policy of maintaining ceilings on interest rates charged on loans makes financial capital generally cheap to those who have access to it.

The effects of the various incentives cited on employment via output are shown in Table A-1. These incentives have contributed to new investment, output expansion, and labor absorption. The directional effect of the contribution of these policies on employment depends on a number of factors. First, on the change and direction of output, and second, on the proportion of labor to total input requirements, its variability and direction. The third factor is the complementing or contradicting effect of the same set of incentives on employment via technology and relative factor prices. These will be discussed in a later section. Finally, the overall effectiveness of each of these incentives in expanding employment opportunities has to be considered alongside other policies which may or may not be consistent with the stated objective of employment generation.

Policies to Increase Labor Use

Government policies influence the extent of labor use through the effect of these policies on relative factor prices and the choice of technique. The encouragement of labor-intensive production processes is common to find in government statements as an officially accepted strategy for promoting greater employment opportunities in the Philippines. However, there are relatively few policy measures or incentives which might positively affect labor absorption. These incentives are: (1) the provision allowing deduction from taxable income of the amount equivalent to one-half of labor training expenses, and (2) the provision allowing deduction from taxable income of direct labor cost used in the manufacture of exports [see Table 4.2]. The first incentive has been sparingly used, however [IBRD, 1980]. The reason is not clear but it is possible that firms prefer to take advantage of another incentive provided by the Labor Code which has

Table 4.2

POLICIES AFFECTING EMPLOYMENT THROUGH RELATIVE FACTOR PRICES AND TECHNOLOGY BY TYPE AND PERIOD OF EFFECTIVITY, PRE-1970 TO 1979

Policy	Pre-1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
I. Through Relative Factor Prices											
A. Fiscal Incentives											
1. exemption from tariff duties and compensating tax on importations of machinery, equipment and spare parts	–	–	–	–	–	– +	– +	– +	– +	+ +	– +
2. tax credit equivalent to 100 per cent of the value of compensating tax and customs duties that would have been paid on machinery and equipment and spare parts (purchased from a domestic manufacturer) had these items been imported	–	–	–	–	–	–	–	–	–	–	–
3. deduction from taxable income in the year rein-											

	vestment was made of a certain percentage of the amount of undistributed profits or surplus transferred to capital stock for procurement of machinery and equipment and other expansion	–	–	–	–	–	–	–	–	–	–	–
4.	deduction from taxable income of direct labor cost and local raw materials used in the manufacture of export products					+	+	+	+	++	++	++
5.	deduction of labor training expenses from taxable income					+	+	+	+	++	++	++
6.	accelerated depreciation	–	–	–	–	–	–	–	–	–	––	––
7.	tax credit for tax withheld on interest payments on foreign loans	–	–	–	–	–	––	––	––	–––	–––	–––
8.	exemption from percentage and sales taxes and taxes on imported machinery for NACIDA-registered cottage industries	–	–	–	–+	–+	–+	–+	–+	–+	–+	–+

Table 4.2 (continued)

Policy	Pre-1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
B. Credit Incentives											
1. preference in the grant of government loans	–	––	––	––	––	––	––	––	–––	–––	–––
2. preference in the grant of SSS and GSIS loans for the purchase of shares of stocks in any registered enterprise	–	––	––	––	––	––	––	––	–––	–––	–––
3. financial assitance from insurance companies	–	–	–	–	–	–	–	–	–	–	–
4. preferential lending rates	–	–	––	––	––	–––	–––	–––	–––	–––	–––
5. preferential rediscount rates for lending to priority industries	–	–	––	––	––	––	––	––	––	–––	–––
6. maintaining interest rate ceilings on loans in general	–	–	–	–	–	–+	–+	–+	–+	–+	–++
C. Labor Legislations											
1. minimum wage legislation	–	––	––	–––	–––	–––	–––	–––	–––	–––	–––

2.	cost of living allowances					–	–	–	––	––	–––	–––
3.	13th month pay							–	–	–	–	–
4.	regulating working and meal hours, providing for premium and overtime pay for holiday and restday work as well as emergency overtime pay		–		–	–	–	–	––	––	––	––
5.	providing for weekly rest periods, including pay for work on restday/Sunday/holiday	–	–	–	–	––	–––	–––	–––	–––	–––	–––
6.	regulations on working conditions of women, minors and househelpers	–	–	–	–	–	–	––	––	––	––	––
7.	providing for medical and dental services, occupational health and safety	–	–	–	–	–	–	–	–	–	–	–
8.	insurance coverage	–	–	–	–	–	––	––+	––+	––+–	––+–	––+–
9.	right to service incentive leave						–	–	–	–	–	–
10.	guaranteed right to self-organization and to join, form or assist labor organizations	–	–	–	–	–	––	––	––	––	––	––

Table 4.2 (continued)

Policy	Pre-1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
for purposes of collective bargaining											
11. reclassification of an unfair labor practice from a criminal to an administrative offense							+	+	+	+	+
12. prohibiting strikes and picketing in industries	+	+	+	+	+	+	++	+++	+++	+++	+++
II. Through Technology											
A. Fiscal Incentives											
1. exemption from tariff duties and comensating taxes on importations of machinery, equipment and spare parts	–	––	––	––	––	–––	–––	–––	–––	–––	–––
B. Institutional Guarantees											
1. protection of patents and other proprietary rights (especially if this applies to foreign technology)	–	–	–	–	–	–	–	–	–	–	–

2. the hiring of foreign nationals in supervisory, technical and advisory positions	–	–	–	–	–	–	–	–	–	–	–
3. permitting foreign investments with or without prior authority	–	–	–	–	–	–	–	–	–	–	–

Note: A policy affecting employment negatively is shown here by a "–" sign while one with a positive effect is shown by a "+" sign. Whenever both effects apply to the revisions for a year the sign "+" or "+" is used.

the same effect on labor cost, i.e., that learners and apprentices may be paid sub-minimum wages during their period of training. Since deduction of labor training expenses from taxable income and the payment of sub-minimum wages to workers under training cannot be done by firms simultaneously, the preference for the latter may be because of the greater flexibility it affords firms to cut down on their labor costs without having to account for actual labor training expenses.

The second incentive permitting deduction of direct labor cost from taxable income is applicable only in the case of export-oriented manufacturing firms. This is probably the reason why export-oriented firms which have received incentives under the EIA have been more labor intensive than those which have received benefits under the IIA [IBRD, 1980]. However, the limit that this particular incentive imposes on employment generation even among export-oriented manufacturing firms arises from the stipulation that the value of direct labor and raw materials cost taken together must not exceed 25 per cent of total export value. Therefore in cases where the cost of raw materials alone is already close to the 25 per cent ceiling, little allowance is left for deducting labor cost. Moreover, this measure is of negligible importance for enterprises producing for both domestic and export markets since it is the value of export sales that sets a ceiling on the value of allowable deductions. This therefore reduces the fraction of the firms' total direct labor costs that may be deducted from their taxable income, not to mention the first possibility that the entire cost of raw materials or a portion thereof may already eat up on the allowable deductions.

As far as policies intended to influence technology toward greater labor intensity are concerned, very little seems to have been done in the seventies. Government policy has been generally passive and the choice of technique has been left to the profit maximizing calculi of individual firms. A positive step taken in 1978 was the creation within the MOI of a Technology Transfer Board (TTB). The TTB has been tasked to formulate policies and issue regulations related to technology importation, acquisition and absorption. Since its formal organization in 1978, the TTB has placed emphasis on foreign exchange considerations in its evaluation of technology transfer contracts as well as in curbing certain restrictive business practices in the area of technology transfer arrangements. The latter is especially important as the elimination of restrictions imposed by foreign technology owners on the use of acquired technological

knowledge could pave the way for indigenous technology development and adaptation to local conditions. The full potential of the TTB in enhancing labor utilization among firms through the effect of policies on technological choice however remains to be tapped.

Institutional Support Measures

The institutional infrastructure to support the various employment creating measures was strengthened in the seventies through several presidential decrees. The Labor Code or PD 442 (1974) provided for the creation of a National Manpower and Youth Council (NMYC) to formulate plans and programs for the efficient allocation, development and utilization of the nation's manpower. A national apprenticeship program was also established to help meet the demand of the economy for trained manpower. While these policies were designed to ensure that the supply of manpower forthcoming in the labor market possessed adequate skills, other policy measures sought to reduce manpower supply by exporting labor in an effort to bring down unemployment in the Philippines. The creation of the Overseas Employment Development Board (OEDB) and the National Seamen Board (NSB) in 1974 signalled the start of a government-sponsored overseas employment program as a means of relieving the economy of some unemployment. The most lucrative market has been the Middle East. To protect workers going abroad, public employment offices under the labor ministry have been put up to oversee placement and recruitment.

Other support measures promulgated in the seventies include: the setting of wages for apprentices at a level not lower than 75 per cent of the applicable minimum wage (1975) and the requirement that at least 10 per cent of field manpower requirements of government-sponsored projects be provided through the employment of deactivated Civilian Home Defense Forces (CHDF) members, special policemen, special provincial guards and rebel returnees (1977). In 1978, the Bureau of Employment Services (BES) was tasked with the development and implementation of a comprehensive employment program. This last-mentioned measure is most significant from the standpoint of employment generation. However, its effectiveness depends on how well it dovetails with the overall investment plans and the extent to which such plans influence the investment decisions of private firms.

With respect to the other support measures previously cited, they

could only be effective insofar as a sufficient demand for labor exists and as safeguards against abuses in the process of their implementation are provided. The apprenticeship program for example offers a means by which employers may circumvent minimum wage legislation. The overseas employment program on the other hand was turned into a lucrative business venture by labor recruiters with the connivance of some government officials at the expense of job-seeking workers.

Policies Limiting Employment Growth

The preceding section has shown that the positive effects of government policies on employment growth emanate mainly from the influence which these policies exert on capital formation and output expansion. These policies, however, have met only limited success in generating a demand for labor sufficient to eliminate existing surplus. Employment growth is limited by (1) other government policies which are inconsistent with the objective of the different investment incentive packages; (2) the nature of the economic incentives employed to encourage investments in preferred areas; and (3) certain institutional constraints which prevent the realization of the various development objectives. These factors are dealt with in this section. First to be discussed is the issue of protection which is a relatively well developed area of study insofar as its implications on the country's industrialization strategy are concerned [see Power and Bautista, 1979]. Findings of recent studies are drawn and merely extend the arguments to the case of employment generation. Second, the bias of the existing incentive structure toward capital intensity is discussed. Finally, labor legislation which is usually regarded as a disincentive for employers is considered in the context of the country's labor surplus situation.

Protection

Industrial promotion and export expansion as a strategy for growth and employment generation are hampered by the existing structure of protection. Indeed an element that has continued to characterize Philippine industrial policy since the fifties is the protection of the domestic sector from import competition. Despite the overall decline in tariffs since 1974, the cascading structure of protection in the Philippines is still considered strong. The study of effective protection rates in 1974 by Bautista and Power [Industrial

Promotion Policies in the Philippines (IPPP), 1979] identifies three elements of bias in the structure of effective protection rates (EPRs) based on tariffs and indirect taxes. These are: (1) a bias in favor of manufacturing over all other sectors; (2) a penalty imposed on exports, manufacturing as well as non-manufacturing, where producers are subject to taxes, particularly on their inputs; and (3) a bias in favor of the finishing stages of production of consumer goods as against intermediate, and especially capital goods.

Protection *per se* is an incentive to production, and if domestic production is induced, employment results. However, protection also has resource allocational effects. The high protection historically accorded the finishing stages of production of consumer goods allowed this sector to grow out of pace of the intermediate and capital goods sectors of the economy which were not granted the same preferential treatment. High EPRs indicate excess profits and/or low levels of efficiency for the protected industries. The industries identified by the IPPP study as having high EPRs were also found to dominate the domestic market in 1974, although they had not exported to any significant extent. A good number of the items in the list of industries having high EPRs may also be found in the government's list of "overcrowded" industries. For such industries which enjoy a considerable degree of home market protection, the prospects for further output expansion and employment generation are thus held down by the disincentive to export on one hand, and the limited size of the domestic market on the other. Moreover, the bias in the structure of protection against the capital goods sector has stunted the development of indigenous capital goods industries in the economy. This is an obstacle to employment expansion in that it limits the economy's long-term ability to expand its production independent of external forces. Not having the industries to produce the means of production, the economy can grow only at a pace allowed by development external to it. The flow of foreign exchange in the form of export earnings, foreign investments and foreign credits or grants for the import of machinery and capital equipment greatly depends on the general health of the industrialized economies over which the Philippines has no control.

The export sector is one that is specifically penalized by the prevailing structure of protection. Aside from the generally high tariff levels, [IBRD, 1980], the disincentive to exports may also be found in the various regulations stipulated by government. These include CB restrictions on the importation of certain items, restrictions on

foreign exchange and time consuming import and export procedures. The IBRD study observed, for example, that high tariffs exist for products which are already in a position to withstand import competition as well as, ironically enough, products not yet produced in the Philippines. Furthermore, CB approval is required for the importation of certain products which are not only potential exports but in fact are already being exported. The importation of a small number of intermediate goods is also restricted by the CB. These goods consist of yarn, textiles and steel plates which are either inputs into the production of export products (such as garments), or inputs into products used in export production (such as cans used in the food processing industry).

The export products covered by the EIA are entitled to duty-free importation and are thus spared from the penalty which the structure of protection generally imposes on the export sector. But it has been noted [IBRD, 1980] that the various methods under which duty-free importation is currently approved (e.g. marginal deposit scheme, drawback system, bonded warehouse system) are time consuming. They also have the effect of tying up working capital and are thus costly to the entrepreneur. Eligibility rules are also biased in favor of the well-established and large scale export industries. In view of the foregoing, it is probable that the export-promoting effects of duty-free importation offset the export-inhibiting effect of protection only for the BOI-registered firms which are large, well-established and financially sound. Thus, new exporting firms may be discouraged.

Capital-bias of Investment Incentives

The existing structure of economic incentives is such that promotes factor substitution away from labor. The economic incentives are in general intended to make investments more profitable, but this is done primarily through subsidies that cheapen the cost of inputs, especially imports and capital. Thus, while an increase in investments because of the incentives may result in new employment, the employment forthcoming is limited by the capital bias in the resulting structure of relative factor prices. At the same time, the import bias in the incentive system also limits employment growth in that it encourages the importation of foreign, capital-intensive technology while serving as a disincentive to the growth of an indigenous capital goods sector and technology development.

The BOI incentives which have been noted to have a negative impact on employment via their effect on relative factor prices and technology are shown in Table A-1 [See also Table 4.2]. The incentives with a predominant capital bias include: (1) tax deductions for expansion reinvestment allowance; (2) tax deductions for the accelerated portion of depreciation charges; (3) tax exemptions by the amount of compensating taxes and customs duties on imported capital equipment; and (4) tax credit for tax on interest on foreign loans.

As of 1977, the capital-related fiscal incentives accounted for about 60 per cent of the total value of incentives availed of by BOI-registered firms under the IIA [IBRD, 1980]. The value of the incentives is based on the amount of tax exemptions, deductions or credits granted said firms. In 1975, these incentives favoring capital use constituted about 83 per cent of the total value of fiscal incentives availed of by firms under the IIA. All these suggest that the BOI incentives are in effect subsidizing capital intensity and that the benefits have tended to go to the more capital intensive firms. The IBRD study [1980] shows that in 1977, some 62 per cent of benefits from the various tax privileges under the IIA went to firms in industries with above average capital intensity.

In addition, the structure of effective protection favors capital intensity in that it has allowed the cheap importation of capital goods. The nature of BOI incentives which predominantly apply to importations of capital equipment reinforces this situation.

It will be noted from Table A-1 that the fiscal incentives granted by the government to encourage investments in other sectors such as agriculture, tourism and construction are essentially similar to those granted under the IIA and the EIA in their capital bias. In the case of the corporate farming program for agriculture, the capital-intensive methods of cultivation limit employment creation. This program also has the tendency to be labor-displacing because individual plots formerly cultivated by tenants or leasees have come under unified control of corporations either through lease arrangements or outright landgrabbing. Observers have noted that corporations have not limited their operations to public agricultural lands or idle private agricultural lands. It is also possible that landowners themselves have voluntarily leased their lands to corporations to escape land reform.

In general, the financial policies of the government tend to lower the cost of financial capital to firms. But whether or not interest rate ceilings, preferential interest rates, liberal rediscounting terms and

priority in the grant of government loans encourage factor substitution away from labor actually depends on how cheap funds are utilized. The effect on employment cannot be determined *a priori*, although most studies[ILO, 1974; IBRD, 1976 and 1980; Bautista and Power, 1979] usually attribute a capital bias to financial policies.

Pricing capital below its equilibrium or "true" scarcity value creates an excess demand for funds, leading to non-price rationing of credit. In this case, access to scarce funds is determined not necessarily by the economic feasibility of the firm or project but by the capability of its owners to offer an acceptable collateral and/or their political connections. If the ability to offer an acceptable collateral is related to the size of the firm, and the latter to capital intensity, then the policy of subsidizing credit discriminates against small and presumably labor-intensive firms (see Table 4.2). It also encourages inefficiency in the use of capital resources which could be channeled elsewhere to generate more employment in the economy.

On the supply side of the loanable funds market, low interest rates constitute a disincentive to savings. Negative real rates of return on savings and time deposits have in turn encouraged an undue emphasis on the short-term money market as an outlet for excess liquidity and source of quick income. This has made the mobilization of funds for long-term investment difficult and the cost of funds for borrowers more expensive in the long-run. In this way, the long-term growth of employment is stunted.

The economic incentives of the seventies have not only discouraged employment through the disadvantage they have caused small and medium labor-intensive industries but have also confined employment generation to areas in and around Manila. That is to say, the incentives also indirectly worked against the regional dispersal of industries. The industries that have been encouraged in the regions are mainly relatively capital-intensive primary product processors located near supply sources [IBRD, 1980]. The policy of banning new non-export projects within a 50 kilometer radius of Manila has merely led to a grouping of industries just outside of the prescribed perimeter, particularly in Cavite and Laguna. This has not helped the more remote regions at all. Besides, the ban has been relaxed. Furthermore, the practice of negotiating project location at the application stage will probably have little effect if it is not complemented by assistance in the form of provision of infrastructure and transport facilities. While the government has offered tax credits for the full amount of infrastructure costs incurred by export firms

in the provinces, the effectiveness of this incentive depends on the willingness and the capability of firms to incur heavy infrastructure costs. The IBRD study [1980] observed that many firms are not prepared to do so.

Labor Legislation

Efforts of both government and labor unions to improve the welfare of labor cause distortions in relative factor prices which may result in less employment. Examples are the Minimum Wage Law (1951), the Government Service Insurance System Act (1951), the Woman and Child Labor Law (1952), the Industrial Peace Act 1953), Blue Sunday Law (1953), the Social Security Act (1954) and many others. After the imposition of martial law, all legislations pertaining to labor were incorporated in the Labor Code which came into effect in 1974 via PD 442. Table A-1 (IV) presents the various provisions which may have had an effect on employment in the period 1970-79. The general areas covered by labor legislation are: (1) minimum wages or incomes policy; (2) conditions of employment; (3) industrial relations; and (4) support measures of an institutional character for the attainment of certain goals espoused in the Labor Code.

The effect of labor legislation on relative factor prices depends on the coverage of such laws, the actual enforcement of such laws, and the relative strength of workers' organizations in demanding compliance by employers with labor laws. Table A-2 shows the various legislative acts, wage orders and presidential decrees fixing minimum wages and granting additional forms of compensation from 1951 to 1981. While there have been sixteen such laws passed during the 1970s, these laws varied in their coverage. Only four laws might be considered as having the broadest possible coverage, namely: RA 6129 (1970), PD 928 (1976), PD 1389 (1979), and PD 1614 (1979). These minimum wage laws applied to workers in agricultural and non-agricultural industries. It will also be noted that since 1976 (PD 928), the government has further made distinctions between non-agricultural industries in Metro Manila and those outside Metro Manila, and between agricultural industries of the plantation and non-plantation types. In making these distinctions, the government was indexing wage adjustments to relative increases in the cost of living across sectors. Presumably, too, the policymakers were cautious not to disturb existing wage differentials between the sectors

considering the large numbers of unemployed and underemployed in the agricultural sector and the inability of the industrial sector to absorb them.

The rest of the sixteen legislations providing for wage adjustments in the seventies had more of a sectoral impact since they were addressed to specific industries or sectors, e.g. jeepney transportation industry (1972); coconut industry (1972, 1973), sugar industry (1972), household helpers (1973) and private employees of various salary ranges (1974, 1975, 1977). Given the relative sizes of these sectors we doubt whether the wage legislations had contributed significantly to holding back total employment in the years they came into effect. Moreover, since 1974, the government has adopted the policy of adjusting wages through the provision of flexible benefits such as the 13th month pay, cost-of-living allowances (COLA) and bonuses. The granting of these flexible benefits instead of permanent or automatic basic wage and salary increases is viewed as having been resorted to so as not to disturb the existing wage floors [Panganiban, 1981]. That is because exemptions could be given for a variety of reasons. Export-oriented or labor-intensive firms established outside Metro Manila are exempted from paying the benefits for the first three years of operation. So are employers of apprentices and learners (who incidentally are also exempt from paying the legal minimum wages). In general, temporarily distressed or dislocated enterprises or industries who can apply to the National Wages Council for exemption from or deferment of compliance with the pertinent PDs may not grant the COLA and other prescribed wage increases. In effect, the government had largely left the initiative to grant wage adjustments to private firms. In fact, the Labor Code makes it explicit that the "Secretary of Labor (later referred to as Minister of Labor) may, to the extent necessary, to promote employment in severely depressed areas, authorize the payment of sub-minimum wage rates, but in no case lower than 50 per cent of the applicable minimum by enterprises that may be established in such areas, to provide employment opportunities to the residents therein." Moreover, minimum wages do not apply to those under tenancy or leasehold arrangements and to workers in cottage industries.

The Labor Code also provides for fixed hours of work, meal periods, regulations on working conditions for women and minors, weekly rest periods and compulsory coverage of the State Insurance Fund, among others. These guarantees to favorable conditions of employment, like minium wages, may be viewed as additional labor

costs by employers and therefore might discourage them from employing more labor. However, the situation of high unemployment and underemployment exerts a downward pressure on the potential returns to labor in the sense that other members of the labor force are compelled to take on jobs requiring lesser skills than they possess and to accept work for lesser pay than the legislated wage rate and/or without the prescribed benefits. Consequently there is little incentive for firms to comply with the various wage and social welfare-related legislations. Thus, a distortion of relative factor prices owing to wage legislation may not be a strong argument for explaining overall unemployment. The reason for this extends beyond the limitation of wage legislation to particular sectors or industries. Enforcement of the various laws is difficult not only because the government machinery may not be up to the task, but more so because the workers themselves might prefer landing a job first and higher wages second on account of the long queue of job applicants. On their part, employers may resort to different means of circumventing labor laws. Hiring on a casual basis is one; another is by keeping employees at an apprentice or learner status even beyond the period allowed by law.

In the area of industrial relations, government policy appears to have been more supportive of employers rather than workers. The right to self-organization is guaranteed all persons employed (in commercial, industrial, agricultural, religious, charitable, educational institutions and enterprises, whether engaged for profit or not) but throughout most of the seventies, i.e. September 1972 to 1979, a ban on strikes was operative. General Order No. 5 issued in September 1972 upon the imposition of martial law prohibited strikes and picketing in vital industries, i.e. companies engaged in the manufacture, processing and distribution of fuel gas, gasoline, fuel or lubricating oil, companies manufacturing and processing essential commodities, export products, companies engaged in banking, etc. In 1975, PD 823 declared it a state policy to encourage trade unionism and free collective bargaining within the framework of compulsory and voluntary arbitration, implying the prohibition of all forms of strikes, picketing and lockouts. The same decree expanded the definition of "strike" to include not only concerted work stoppages but also slowdowns, mass leaves, sitdowns, attempts to damage, destroy or sabotage plant equipment and facilities. The extension of assistance by foreigners and nationals alike to labor organizations was also placed under regulation. In December 1975, PD 823 was amend-

ed by PD 849 following opposition from labor groups and other sectors sympathetic to labor. PD 849 restricted the prohibition on strikes to vital industries (public utilities, including transportation, communication, companies engaged in the manufacturing, processing, distribution of fuel gas, gasoline and fuel or lubricating oil, companies engaged in the production and processing of essential commodies or export products, and in hospitals, schools and colleges), and while allowing strikes in non-vital industries limited these work stoppages to reasons related only to "unresolved economic issues" in collective bargaining with the proviso that appropriate notices are filed with the authorities 30 days before the intended strike. LOI 368 issued in January 1976 provided a list of vital industries wherein strikes were prohibited (See Table 4.3). However, it stated too that the labor minister may include in or exclude from the list any industry, firm or company as the "national interest, national security or general welfare may require."

The government also streamlined the institutional set-up for adjudicating labor relations cases. It created the National Labor Relations Commission (NLRC) in 1974 to exercise appellate jurisdiction over all cases decided by labor arbiters and compulsory arbitrators. Later in 1975, through PD 1391, the Minister of Labor was named chairman of the NLRC for the purpose of speeding up the process of appeals regarding decisions or awards of labor arbiters. PD 643 issued in January 1975 authorized the President to have the final say on labor disputes appealed to him, and to step in and decide on labor disputes whenever deemed necessary. The same decree authorized the labor minister to deputize the Philippine Constabulary and other law enforcement agencies to enforce orders, decisions or awards of labor arbiters.

While the liberalization of the strike ban in 1975 may have had some negative effect as far as the behavior of employers vis-a-vis hiring was concerned, it might be said that in the main the impact was of little significance. First, because the government still had the power (both suasive and coercive) to order striking workers to resume work. The administrative reforms mentioned in the preceding paragraph seem to serve this end. Second, because the liberalization of the strike ban was limited only to non-vital industries with the government retaining the right to define what constitutes a vital industry. Third, because the extent of union organization is at present small (about 10 per cent of the employed work force), concentrated in manufacutring, and largely confined in Metro Manila. More-

Table 4.3
LIST OF VITAL INDUSTRIES AND COMPANIES UNDER PRESIDENTIAL DECREE 823 AS AMENDED WHEREIN STRIKES/LOCKOUTS ARE PROHIBITED[1]

1. Public Utilities:
   A. Transportation:
      1. All land, air and water companies or firms engaged in passenger freight or tourist transport;
      2. All brokerage, arrastre, warehousing companies or firms;
   B. Communications:
      1. Wire or wireless telecommunications such as telephone, telegraph, telex, cable companies or firms;
      2. Radio and television companies or firms;
      3. Print media companies;
      4. Postal and messengerial service companies;
   C. Companies engaged in electric, light, gas, steam and water power generation and distribution and sanitary service companies;
   D. Other Public Utilities:
      1. Ice and refrigeration plants
2. Companies or firms engaged in the manufacture or processing of the following essential commodities:
   A. Animal feeds
   B. Cement
   C. Chemicals and fertilizers
   D. Drugs and medicines
   E. Flour
   F. Products which are classified as essential commodities in the list of National Economic and Development Authority except the following: rice, corn, some basic cuts of meat, cooking oil, laundry soap, lumber and plywood, galvanized iron sheets, writing pads and notebooks.
   G. Iron steel, copper, tin plates and other basic mineral products
   H. Milk
   I. Newsprint
   J. Tires
   K. Sugar
   L. Textile and garments
3. Companies engaged in the production and processing of products for export which are holders of Central Bank or Board of Investment Certificate of

Table 4.3 (Cont.)

Export Orientation, including hotels, and restaurants classified as three (3), four (4) or five (5) star by the Department of Tourism.

4. Companies engaged in exploration, development, mining, smelting or refining coal, oil, iron, copper, gold and other minerals.
5. Companies or firms engaged in banking including:
   - A. Commercial banks
   - B. Savings banks
   - C. Development banks
   - D. Investment
   - E. Rural banks
   - F. Savings and loan association
   - G. Cooperative banks
   - H. Credit unions
6. Companies or firms which are actually engaged in government infrastructure projects and in activities covered by Defense contracts;
7. Hospitals as defined in Section 2, Rule I-A, Book III of the Rules and Regulations Implementing the Labor Code of the Philippines; and
8. School and colleges duly recognized by the Government.

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1. The Secretary of Labor (now called Minister of Labor and Employment) may include in, or exclude from, the above list any industry, firm or company as the national interest, national security or general welfare may require.

Source: Letter of Instruction No. 368, January 26, 1976.

over, the more militant labor unions, their leaders and organizers have not escaped varied forms of threats and harassments from both the military and private business. There have been reports that a number of trade unionists have been arrested, tortured and detained. Thus the potential of labor unions to serve as enforcers, if not initiators, of labor legislation through the threat of their collective action has not been fully utilized. Organizational weakness is partly a reason. But this has been reinforced by the rate of unemployment and underemployment, the strike ban and the various restrictions imposed through martial law.

The rationale for the government's industrial relations policy is obviously to create a situation wherein economic activity may proceed uninterruptedly, thereby preventing economic dislocations and contributing to economic growth and employment generation. The restrictions on the various forms of work stoppage find justification in the argument that these are inimical to the interests of business

owners on whom the labor force is dependent for employment. In effect, therefore, the direction of the bias of the government's legislations pertaining to industrial relations has been towards greater, rather than less, employment. Whether the terms of employment are acceptable or not to those employed is, however, an altogether different matter. It is apparent that in the current period, labor is being asked to forego increases in incomes in the interest of generating more employment. The looseness in the implementation of wage legislation further attests to this. In sum, labor legislation in the present context cannot be considered a factor militating against the fuller employment of the country's labor resources.

Further Considerations

On the basis of the initial survey of government policies thus far, it may be concluded that the policies as a whole cannot be expected to contribute significantly to reducing unemployment. The multiplicity of objectives which these policies address and the processes resulting from such policies have generated mixed effects on employment. Employment could have increased as a result of the various policies favoring investments and encouraging new economic activities in the various sectors. But such increases could have been negated by the contradicting effects of other policies or of the same policies on labor use via their influence on relative factor prices and technology.

These initial attempts at policy mapping have merely pointed out the directional impact of various policies and programs on employment. No attempt is made to calculate how much net employment loss or gain has resulted from the policies as a whole, although it may be argued that unemployment is obvious in that it persists despite so many programs purported to alleviate it. Any effort to examine the net result of government policies on employment will require more detailed estimates of the amount of employment traceable to government policies, the relative sizes of the sectors affected by the policies and the number as well as types of firms availing of the various incentives. Employment effects attributable to backward and forward linkages need also to be determined. In addition, information is needed regarding existing technologies in the sectors or firms affected by the policies as well as measures of employment-output elasticities, substitution elasticities and so on. In connection with the observation that the structure of incentives has biased factor inten-

sity against labor use, information on the existence and availability of alternative technologies or the capability and means as well as practicability of developing these is crucial if policy is to be directed towards encouraging labor intensity without sacrificing productivity.

Chapter 5

THE EMPLOYMENT EXPERIENCE IN THE 1970s

The employment experience in the 1970s is discussed in three sections which use the survey of households data series. The first is an overview of employment in the 1970s comparing the labor force with employment and presenting alternative measures of labor underutilization to better estimate the extent of the employment problem. The second section focuses on a description of employment generated by the different production sectors not only in the 1970s but also in the late 1950s and the 1960s. A more disaggregated description of employment in the 1970s is presented using a two-digit industrial classification. The third section is an attempt to analyze the trend of employment by sector during the period 1957 to 1978 based on a heuristic framework which defines the growth of employment in terms of the growth of output, the productivity per person engaged and the incremental labor-output ratio. The second and third sections divide the period of analysis, 1957 to 1978, into three equal seven-year periods, namely, 1957-64, 1965-71 and 1971-78.

Employment Overview in the 1970s

This section is an overview of the employment situation through an examination of the labor force relative to the working age population and its employment status in the 1970s. Different measures of labor underutilization for the decade are also included. Because of the discontinuity in the data for 1970s, the decade is divided into the first half (1971-76) and the second half (1976-78 or 1976-80 depending on the data available). Table 5.1 and Figures 5.1 and 5.2 summarize the employment situation.

The Labor Force Participation Rate (LFPR), went down from 57.6 in 1961 to 50.0 in 1971 and increased to 62.8 in 1980. One observes relatively higher LFPRs since 1976 averaging 61.6 for 1976-1980 (as compared to 50.5 for 1971 to 1976) even when the working population base was narrowed. The labor force increased from 10.0 million in 1961 to 12.9 million in 1971 or by 2.9 million. In the succeeding decade, 1971 to 1980, it grew by 5.2 million, reaching a total of 18.1 million in 1980. This is even likely to be an underestimation since the populatin base in 1980 was limited to those who were 15 years old and over whereas in 1971 the age group 10-14 years old was included.

Table 5.1
AVERAGE ANNUAL HOUSEHOLD POPULATION (10/15 YEARS OLD AND OVER) AND LABOR FORCE BY EMPLOYMENT STATUS, 1957, 1961, 1966, AND 1971 to 1980
(in thousands, except per cent)

Group/Indicator	1957	1961	1966	1971	1972	1973	1974	1975	1976[b]	1977	1978	1979[c]	1980[d]
Population (10/15 years old and over)[a]	15,365	17,358	21,143	25,811	26,968	28,332	28,810	29,351	31,376 24,837	25,695	26,737	27,918	28,803
Labor Force (LF)	8,771	9,995	11,822	12,911	13,701	14,140	14,470	14,724	16,244 15,018	15,328	16,579	17,536	18,076
Employed (E)	8,103	9,245	10,984	12,246	12,834	13,450	13,885	14,142	15,427 14,238	14,547	15,768	16,802	17,202
Underemployed (Ud)	1,512	2,118	2,612	1,862	1,628	1,663	1,417	1,652	1,634 3,628	2,897	2,506		
Visibly[e]	976	1,111	1,035	807	762	849	763	811	829 2,178	1,588	1,332		
Invisibly[f]	536	1,007	1,577	1,055	866	814	654	841	805 1,450	1,309	1,174		
Unemployed (U)	668	751	838	666	867	690	584	581	818 780	781	811	734	874
Labor Force Participation Rate (LFPR)	57.1	57.6	55.9	50.0	50.8	49.9	50.2	50.2	51.8 60.5	59.7	62.0	62.8	62.8
Employment Rate	92.4	92.5	92.9	94.8	93.7	95.1	96.0	96.1	95.0 94.8	94.9	95.1	95.8	95.2
Underemployment Rate: % of LF	16.3	21.2	22.1	14.4	11.9	11.8	9.8	11.2	10.1 24.2	18.9	15.1		

Group/Indicator	1957	1961	1966	1971	1972	1973	1974	1975	1976[b]	1977	1978	1979[c]	1980[d]
% of E	17.7	22.9	23.8	15.2	12.7	12.4	10.2	11.7	10.6				
									25.5	19.9	15.9		
Visibly: % of LF	10.7	11.1	8.8	6.3	5.6	6.0	5.3	5.5	5.1				
									14.5	10.4	8.0		
% of E	11.6	12.0	9.4	6.6	5.9	6.3	5.5	5.7	5.4				
									15.3	10.9	8.5		
Invisibly: % of LF	5.7	10.1	13.3	8.2	6.3	5.8	4.5	5.7	5.0				
									9.7	8.5	7.1		
% of E	6.1	10.9	14.4	8.6	6.7	6.1	4.7	5.9	5.2				
									10.2	9.0	7.4		
Unemployment Rate	7.6	7.5	7.1	5.2	6.3	4.9	4.0	3.9	5.0				
									5.2	5.1	4.9	4.2	4.8

[a]The minimum age for labor force membership was set at 10 years before 1976 and 15 years thereafter.

[b]The second figures in 1976 and the figures of 1977 to 1980 are from the quarter-based household surveys while those of the earlier years are from the week-based surveys.

[c]Figures for this year are preliminary estimates based on hand tallied result of accomplished questionnaires for four quarters.

[d]Figures for this year are preliminary estimates based on hand tallied result of accomplished questionnaires for the last two quarters.

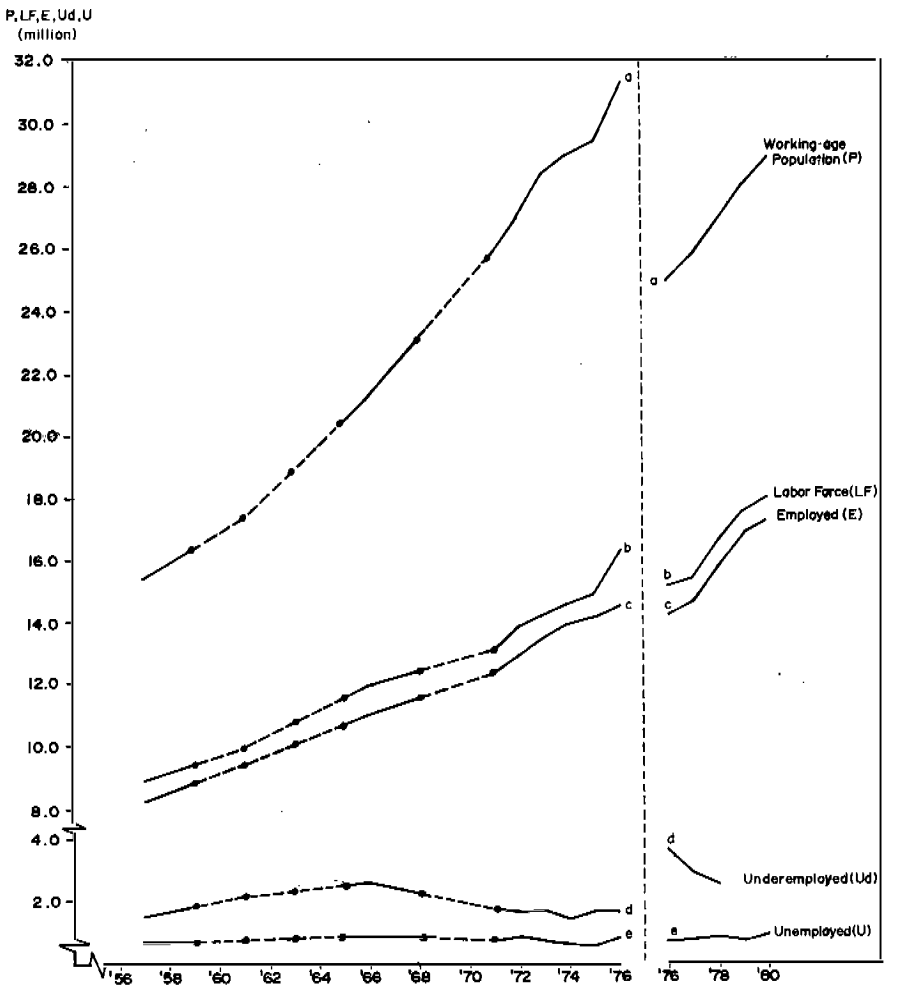
[e]Visibly underemployed – those who worked less than 40 hours and wanted additional work.

[f]Invisibly underemployed – those who worked 40 hours or more and wanted additional work.

NOTE: The employment figures are averages of all surveys taken during the year: 1957-March, May and October; 1961 and 1966-May and October; 1971-March, May, August and November; 1972 to 1974-February, May, August, and November; 1975-February and August; 1976-August and 3rd quarter; 1977-1st, 3rd, and 4th quarters; 1978-1st to 4th quarter; 1979-(preliminary) 1st to 4th quarter; 1980-3rd and 4th quarter.

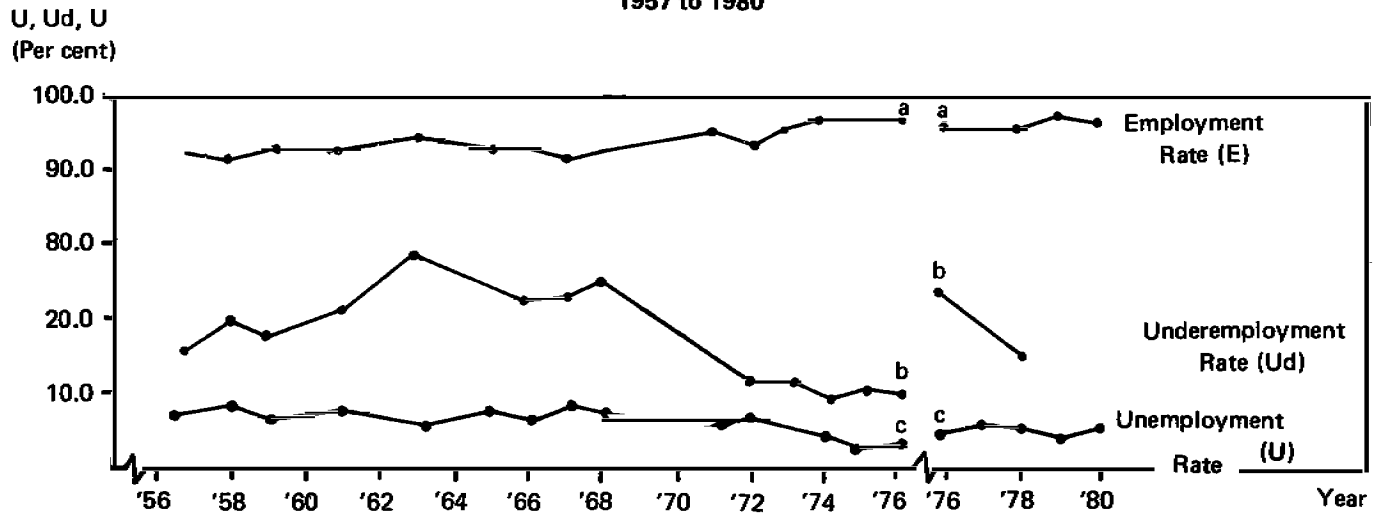
SOURCES: NCSO, *National Sample Survey of Households Bulletin* (formerly *The BCS Survey of Households Bulletin*) for figures up to 1976 and *Integrated Survey of Households Bulletin* for 1976 to 1978.

Figure 5.1
LABOR FORCE BY EMPLOYMENT STATUS,
1957 to 1980



Source: Figures for 1957, 1961, 1966, 1971 to 1980 are from Table 5.1 of the text; those of 1958, 1959, 1963, 1965, 1967 and 1968 are from the NCSO, *National Sample Survey of Households Bulletin* (formerly the BCS, *Survey of Households Bulletin*).

Figure 5.2
LABOR FORCE BY EMPLOYMENT STATUS,
1957 to 1980



Source: Figures for 1957, 1961, 1966, 1971 to 1980 are from Table 5.1 of the text; those of 1958, 1959, 1963, 1965, 1967 and 1968 are from the NCSO, National Sample Survey of Households Bulletin (formerly the BCS, *Survey of Households Bulletin*).

The employed increased from 9.2 million in 1961 to 12.2 million in 1971 and to 17.2 million in 1980. The 1962 to 1971 period experienced a 3.0 million increase while the next period had an increase of 5.0 million. These employment figures as proportions of the labor force came to 92.5 per cent, 94.8 per cent, and 95.2 per cent, respectively. The average annual employment rate in the first half of the 1970s (1971-76) and in the second half (1976-80) averaged 95.1 per cent and varied at most only by 1.4 percentage points between any two years.

The residual of the labor force, i.e., the unemployed was .8 million in 1961, .7 million in 1971 and .9 million in 1980. The unemployment rate as a proportion of the labor force was 7.5 per cent, 5.2 per cent and 4.8 per cent, respectively. This rate averaged 4.9 in the first and 4.8 in the second half of the 1970s and had the same small annual variation as the employment rate.

If these two measures can be taken at face value, the conclusion is that there was no unemployment problem in the 1970s. But given the biases of the definitions used, employment is overestimated and unemployment is underestimated. There is a need to look at the levels of other indicators of labor underutilization to qualify the above measures.

Underemployment is another dimension of labor underutilization. The survey of households classifies underemployment as visible or invisible depending on the length of employment. The visibly underemployed are those working less than full-time and wanting additional work. The count will depend on the full-time and wanting additional work. The count will depend on the full-time standard used. The government sector is governed by a 40-hour week full-time schedule. However, the national average was a 45-hour week for 1971 to 1976. A 40-hour week (measure I) and a maximum of a 49-hour week (measure III) is used in the estimation to define the range of full-time work. For data from 1976 onward which use the quarter reference period, the analogous lower and upper limits in days worked are assumed to be 64 days and 76 days per quarter, respectively. In addition, there are two possible units of measurement that can be used – a person count (as in Table 5.1) or the full-time equivalent unemployment of the visibly underemployed. The latter concept may be interpreted as the number of fully unemployed equivalent to the visible underemployment or the number of full-time jobs needed to eradicate underemployment.

Table 5.2 summarizes the relative magnitude of the range of

Table 5.2
AVERAGE ANNUAL VISIBLE UNDEREMPLOYMENT (Ud_v)[a]
1971-76 AND 1976 – 1978
(in thousand, except per cent)

Ud_v	1971-76		1976-78	
	In thousand	% of LF	In thousand	% of LF
Person Count				
Measure I	804	5.6	1,699	10.9
Measure II	1,353	9.4	2,187	14.0
Full-time Equivalent				
Measure I	273	1.9	712	4.6
Measure II	436	3.0	913	5.8

[a]For the years 1971 to 1976, these refer to visibly underemployed persons reported employed at work for less than 40 hours (Measure I)/49 hours (Measure II) during the survey week and wanting additional work. For the years 1976 and thereafter, the full-time work standard used are 64 days (Measure I)/76 days (Measure II) during the last quarter prior to the survey.

Source: Table A-3.

visible underemployment (Measure I and Measure II) using the person count and its full-time equivalent. The combination of measure I and full-time equivalent gives the lowest estimates while that of measure II and person count gives the highest. The number of people affected by visible underemployment using measures I & II averaged between .8 million (5.6 per cent of labor force) and 1.4 million (9.4 per cent yearly during 1971-76. By 1976-78, it increased annually between 1.7 million (10.9 per cent) and 2.2 million (14.0 per cent). If we are to count the equivalent full-time jobs needed to employ these people fully, these would range from .3 million to .4 million annually during the first half of the 1970s, increasing to .7 million to .9 million yearly by 1976-78. (For the rest of this section the lower full-time work standard of a 40-hour week/yr day quarter, is used, i.e., measure I and person count of visibly underemployed, unless otherwise specified.)

The visibly underemployed (measure I; person count) constituted 11.1 per cent of the labor force of 1.1 million in 1961, dropped to 6.3 per cent or .8 million in 1971 and increased to 8.0 per cent or 1.3 million in 1978 (Table 5.1). The visible underemployment rate was lower in 1971-76, averaging 5.6 per cent yearly, as compared to the 1976-78 average of 11.0 per cent. Does this mean a worsening of visible underemployment? In absolute terms the yearly visible underemployment in 1976-78 was higher than in 1971-76. The survey changes since 1976 made the labor force estimates even smaller than those in the 1971-76 series, thus, the higher rates in 1976-78 indicating a worsening rate of visible underemployment in the second period although the situation improved after 1976.

The invisibly underemployed, i.e., those working at least full time but still wanting additional work (who may be compared to Hauser's underutilized labor due to inadequate income and due to a mismatch between ccupation and education), was 10.1 per cent of the labor force or 1.0 million in 1961, 8.2 per cent or 1.1 million and 1971 and 7.2 per cent or 1.2 million in 1978 (Table 5.1). The average annual invisible unemployment in 1971-76 was smaller (5.8 per cent) than that of 1976-78 (8.4 per cent) as was the case for the visibly underemployed.

The total underemployed averaged 1.6 million during 1971-76 and 3.0 million in 1976-78 (Table 5.1). Though declining in the latter half of the 1970s, it was as high as 2.5 million as of 1978 (the last year with published underemployment data). These figures indicate a worse state of underemployment relative to the 1971-76 period considering that a relatively smaller labor force base was used in the first half of the 1970s.

The number of unemployed and the visibly underemployed whose number may be decreased by job creation, may be counted by using the person count or its full-time equivalent unemployment. Using the former count (Table 5.3), these two groups averaged 1.5 million yearly in 1971-76, increasing to 2.5 million annually in 1976-78; they accounted for 10.5 and 15.9 per cent of the labor force, respectively. The latter count came up to 1.0 million annually (or 6.8 per cent of the labor force) in the first period and 1.5 million annually (or 9.6 per cent) in the second period; these are the numbers of yearly full-time jobs needed to fully employ the unemployed and the visibly underemployed during the two periods of the 1970s.

It would be interesting to give an approximation of the total labor underutilization using Hauser's framework and the extent of

Table 5.3
SUMMARY OF ANNUAL AVERAGES OF LABOR UTILIZATION AND UNDERUTILIZATION MEASURES, 1971-76 AND 1976-80

Labor Under-/Utilization Measure	Annual Average								
	1971-76				1976-80				
	In thousand		(per cent)		In thousand		(per cent)		
Labor Force (LF)	14,365				16,507				
LF as % of Population 10/15 Years Old and Over			50.5				61.6		
Employment; % of LF	13,664		95.1		15,711		95.2		
Unemployment (Un); % of LF	701		4.9		796		4.8		
Visible Underemployment (Ud_v)[a]; % of LF									
Person Count	804		5.6		1,699		10.9		b
Full-time Equivalent		273		1.9		712		4.6	
Invisible Underemployment (Ud_i); % of LF									
Person Count	839		5.8		1,311		8.4		
Total Underemployment (Ud_t); % of LF									
Person Count	1,643		11.4		3,010		19.2		
Full-time Equivalent		1,112		7.7		2,023		12.9	
Unemployment and Visible Underemployment ($Un + Ud_v$); % of LF									
Person Count	1,505		10.5		2,490		15.9		
Full-time Equivalent		974		6.8		1,503		9.6	
Unemployment and Total Underemployment ($Un + Ud_t$); % of LF									
Person Count	2,344		16.3		3,801		24.3		
Full-time Equivalent		1,813		12.6		2,814		18.0	
Unemployment Total Underemployment and Potential ΔLF ($Un + Ud_t + \Delta LF$); % of "LF"[c]									
Person Count	5,438		31.1[c]		6,815		36.5[c]		
Full-time Equivalent		4,907		28.1[c]		5,828		31.1[c]	

[a]All estimates of visible underemployment in this table use a 40-hour week full-time work standard (Measure I) for 1971 to 1976 and 64-day quarter (Measure I) for 1976 to 1978.

[b]The figures correspond to period 1976-78. The annual average labor force and unemployment for the period 1976-78 are 15,642 thousand and 791 thousand, respectively.

[c]"LF" is defined as the labor force plus the potential increase in labor force.

idle labor or labor reserve referred to by Myrdal.

To approximate Hauser's measure of labor underutilization, we can add the unemployed (Un) with the total underemployed (d_t) (see Table A-3). Comparing again the two periods, 1971-76 and 1975-78, using the person count, the annual average of Un + Udt was 2.3 million in the first period and 3.8 million in the second period, or 16.3 per cent and 24.3 per cent of the labor force, respectively (Table 5.3). Expressed in full-time equivalents, these come to 1.8 million (12.6 per cent) and 2.8 million (18.0 per cent).

As an estimate of the possible upper measure of labor underutilization, Myrdal's concept of the idle or reserve labor is applied which adds to the count of the unemployed and the underemployed a portion of the working age population who are outside the labor force. This third group of people is composed of labor force. members who would become active workers if the sociocultural – economic milieu were to be changed appropriately.

During the period 1971-76, an annual average of 49.5 per cent of the working age population (10 yrs. old and above) was outside the labor force while in 1976-80, 38.4 per cent of those aged 15 years old and over was not in the labor force. Although this percentage declined, partly due to the adoption of a higher minimum working age starting in 1976, the size of those outside the labor force was still substantial. The group averaged 14.1 million and 10.3 million annually in 1971-76 and 1976-80, respectively.

The two largest groups among those of working age but were not in the labor force were the housekeepers and the students who comprised 53.6 per cent and 35.0 per cent respectively of those outside the labor force in 1978 (Table A-4).

As a first approximation, let us estimate the portion of the labor reserve from those outside the labor force under the following assumptions: among the groups outside the labor force, only housekeepers and students can be tapped into the labor force; all housekeepers on the average prefer to work half-time; all students except those of ages 19 years or younger would like to work full-time and the same proportions of housekeepers and students of ages 19 years or less of those outside the labor force as the average for the three quarters in 1977 (1st, 3rd and 4th) and in 1978 (1st, 2nd and 4th) will be used for the years considered in the estimation.

Under these assumptions, the average annual labor force increased by about 3.0 million from 14.4 to 17.5 million in 1971-76 and from 16.5 to 18.6 million in 1976-78 (see Table A-5 for the esti-

mation). These changes increased the LFPR from 50.5 per cent to 61.4 per cent in 1971-76 and from 61.6 per cent to 72.4 per cent in 1976-78. If we count these increases in the labor force as additional unemployed, the unemployment rate as a proportion of the adjusted LF would average 22.5 percent yearly in 1971-76 and 20.4 in 1976-78. Finally, the labor reserve (person count) which includes the unemployed, the underemployed and the potential labor force members would average 5.4 million annually during 1971-76 and 6.8 million yearly in 1976-78 (Table 5.3). Thse would come to about a third of the adjusted labor force yearly, i.e., 31.1 percent and 36.5 per cent, respectively. Using more adequate measurement concepts, higher and more serious labor underutilization was estimated for the 1970s.

Employment by Industry

Employment by industry from 1957 to 1978 is presented first. The trend in the individual industries' relative shares of total employment using Kuznet's broad industrial classification and a one-digit industrial classification is determined, then the measure of the contribution of the different industries to employment generation is taken by summing up net annual employment changes during a given period. Finally, a description of employment generation in the 1970s using the same measure but for a 2 digit industrial classification is given to highlight the relative employment contributions of sub-industries and identify areas in need of more research for policy making.

Since the survey of households employment data by industry is being used without any adjustment, there could be discontinuities in the data especially between 1971-76 and 1976-78 where an upward bias has been indicated for the latter period as discussed in chapter 3. These biases in the data would likewise bias any trend analysis based on this data set. Unfortunately the resulting biases on the trend of employment by industry cannot be determined.

Table 5.4 shows the employment by industry during the period 1957, 1964, and 1971 to 1978. It uses a one-digit industrial classification and Kuznets' classification of industries into "agriculture" (or A sector which includes agriculture, forestry, fishing and hunting), "industry" (or I sector which includes mining and quarrying, construction, manufacturing, electricity, gas, water and sanitrary services and transport storage and communication), and "services" (or S

Table 5.4
EMPLOYMENT BY INDUSTRY, 1957, 1964, and 1971 to 1978
(in thousands)

	1957	1964[a]	1971	1972	1973	1974	1975	1976[b]	1977[c]	1978
All Industries	8103	10253	12246	12834	13450	13885	14143	14235	14329	15768
A	4838	5970	6091	6907	7306	7727	7633	7511	7391	8123
I	1533	1880	2514	2405	2450	2431	2585	2697	2826	3099
S	1732	2406	3641	3522	3694	3728	3925	4027	4112	4546
Agriculture, Forestry, Hunting & Fishing	4838	5970	6091	6907	7306	7727	7633	7511	7391	8123
Mining and Quarrying	29	30	58	52	61	47	49	55	62	70
Manufacturing	1024	1183	1443	1396	1406	1442	1546	1542	1538	1770
Electricity, Gas, Water and Sanitary Services	20	22	55	42	37	38	44	59	70	71
Electricity, Gas and Water								39	49	52
Cosntruction	231	315	438	429	438	394	437	462	488	506
Transport, Storage and Communications	229	330	521	486	508	510	510	583	668	682
Commerce	800	1133	1517	1558	1565	1559	1599	1557	1517	1774
Wholesale and Retail Trade								1418	1370	1622
Financing, Insurance, Real Estate and Business Services								277	313	314
Government, Community, Business and Recreational Services	393	607	1189	1082	1134	1193	1285	1459	1651	1797

Domestic Services	308	409	635	611	703	679	750			
Personal Services other than Domestic	173	234	270	261	257	271	259	926	834	913
Community, Social & Personal Services								2263	2342	2567
Not Reported	58	23	31	11	35	26	37	85	110	62

[a]The 1964 figures were taken from Table 6 of R. L. Tidalgo, "Labor Absorption in the Philippines, 1956-73," *PEJ*, Vol. 15, Nos. 1 & 2 1976.

[b]The 1976 employment figures are interpolated values derived from the computed annual geometric growth rate from 1975 to 1977 in each category.

[c]The 1977 figures are averages of the third and fourth quarters only; it excludes the first quarter because of the different industrial classification used.

SOURCE: NCSO, *National Sample Survey of Household Bulletin* (formerly the *BCSSH Bulletin*) for the years 1957 to 1975 and the *Integrated Survey of Households Bulletin* for 1977-78.

NOTE: The employment figures are averages of all survey taken during the year: 1957-March, May and October; 1964-interpolated from May and October figures for 1963 and 1965; 1971-March, May, August and November; 1972 to 1974-February, May August and November; 1975-February and August; 1976-interpolatted from 1975 and 1977 figures; 1977-3rd and 4th quarters;

Starting in 1976 industries were reclassified in the published data as shown by the boxed statistics. We reestimated the employment for the same industrial classification prior to 1976 for a consistent time series.

sector which includes commerce, government, community, business and recreational services, domestic services, personal services other than domestic and industry not reported). Using the broad industry classification and the 1957, 1964, 1971 and 1978 data, "agriculture" remained the largest employing industry followed by "services" and lastly by "industry". Ranking the industries by relative size of employment and using the one digit industrial classification, manufacturing came second after agriculture (except in 1971 and 1978 when commerce came second) then commerce, government, community, business and recreational services followed by domestic services, transport, storage and communication, construction, personal services other than domestic, mining and quarrying, and finally, electricity, gas, water and sanitary services.

A comparison of the percentage distribution of employment by industry for three seven year periods (1957-64, 1964-71 and 1971-78) shows a shift of employment distribution mostly from "agriculture" towards "services" and a little towards "industry" (Table 5.5). "Agriculture's" share declined from 59.0 to 50.5 per cent while that of "services" increased from 22.4 to 29.3 per cent and that of "industry" went up from 18.6 to 20.2 per cent. Using the one-digit classification, manufacturing's share declined from 12.1 per cent to 11.6 per cent, it was the only other industry after agriculture which experienced a decline in its relative share of total employment during the period. Government, community, business and recreational services gained most in employment share in percentage points increased from 5.4 to 10.6 per cent.

Employment Generation, 1957-1978

Employment generation in a sector may be measured by the count of additional employment minus terminated employment for a given period. The sum of the yearly net sectoral employments may be used to approximate this phenomenon over a number of years although it may not capture all the employment turnover within any year during a period under consideration. For a number of reasons, employment may be generated and dissolved in one sector within a year. Biannual and quarterly data may not capture these completely. If employment, regardless of its length, may be considered better than no employment, then, the biannual and quarterly employment statistics used in this study underestimate some employment creation of this nature. Given this clarification, a positive yearly employment

Table 5.5
AVERAGE[a] INDUSTRIAL DISTRIBUTION OF EMPLOYMENT
1957 TO 1978
(in per cent)

Industry	1957-64	1964-71	1971-78
All Industries	100.0	100.0	100.0
A	59.0	54.0	50.6
I	18.6	19.4	20.2
S	22.4	26.6	29.2
Agriculture, Fishery, Forestry & Hunting	59.0	54.0	50.6
Mining and Quarrying	0.3	0.4	0.5
Manufacturing	12.1	11.7	11.6
Electricity, Gas, Water & Sanitary Services	0.2	0.3	0.5
Construction	3.0	3.4	3.4
Transport, Storage and Communication	3.0	3.8	4.3
Commerce	10.5	11.8	11.8
Government, Community, Business and Recreational Services	5.4	8.0	10.7
Domestic Services	3.9	4.6	6.4
Personal Services other than Domestic	2.2	2.2	
Not Reported	0.5	0.2	0.4

[a]Average industrial distribution of the beginning and ending years of each period.
Source: Table 5.4.

differential or net employment between years can be taken to mean more employment positions created than terminated and vice versa when negative. All these yearly net employments can be added to get a measure of the overall performance of an industry in employment creation in a given period.

A comparison of the employment generation in 1971-78 with that of the past may be made. Table 5.6 summarizes employment generation using Kuznets' broad industry grouping. Comparing the

Table 5.6
EMPLOYMENT GENERATION BY BROAD INDUSTRY GROUPING, 1957 to 1978
(in thousands, except per cent)

Employment Generation Index	1957 – 1964				1964 – 1971				1971 – 1978			
	A	I	S	All	A	I	S	All	A	I	S	All
Net total annual changes	1132	347	674	2153	121	635	1236	1992	2032	585	905	3522
Average net annual employment generation	162	50	96	308	17	91	177	285	290	84	129	503
Net total employment generation as a percentage of the sector's 1957/1964/1971 employment level	23.4%	22.6%	38.9%	26.6%	2.0%	33.8%	41.5%	19.4%	33.4%	23.3%	24.9%	28.8%
Net total employment generation per sector as a percentage of net total employment generation in the economy	52.6%	16.1%	31.3%	100.0%	6.1%	31.9%	62.0%	100.0%	57.7%	16.6%	25.7%	100.0%

Source: R. L. Tidalgo, "Labor Absorption in the Philippines, 1956-1973". *PEJ* (30), 1976, Table 3.7, except for the inclusion of the March survey data in the averaging of the 1957 and Table 5.4 of this text.

overall performance for the three periods, the 1971-78 period had the highest employment generation whether one uses the measure of net employment generation in absolute terms or average net annual employment generation or even net employment generation as a percentage of the sector's employment level at the beginning of the seven year period. It is followed by the period 1957-64 and 1964-71. Among the three broad industry groups, "agriculture" contributed the most in terms of employment performance of 1971-78 as it also did in 1957-64. "Services" topped the two other groups in the second period 1964-71, and was second to "agriculture" in 1957-64 and 1971-78. The "industry" group had the lowest employment generation for 1957-64 and 1971-78 except for the middle period when "agriculture's" performance was lowest. (Care should be exercised in interpreting this performance of "agriculture" in 1964-1971 wherein the data from 1968 to 1971 shows a dramatic drop in employment of almost 400 thousand over a 3-year period.[1] This might be a statistical artifact.)

A look at the relative shares of total employment generated during these three periods, will show "agriculture" accounted for more than half of the total in 1957-64 and 1971-78 with 52.6 and 57.7 per cent, respectively, followed by "services" with 31.3 and 25.7 per cent, respectively, and lastly, "industry" with 16.1 and 16.6 per cent. However for the second period, 1964-71, "services" accounted for 62.0 per cent of the total employment generated, followed by "industry" with 31.9 per cent and the rest was in "agriculture."

Among the sub-industries in the "industry" sector, manufacturing generated the most employment in terms of the different measures used in Table 5.7. Transport, storage and communication came second followed by construction, utilities and finally mining and quarrying. However, manufacturing, unlike all the other sub-industries in the sector, contributed the most to employment in 1971-78 whereas the other sub-industries had their peak contribution to employment generation in 1964-71. Manufacturing accounted for 40.9 to 55.9 per cent of total employment generated by the "industry" sector during the three periods.

In the "services" sector, government, community, business and recreational services generated the largest employment from 1964-

1. Table 6 of R. L. Tidalgo, "Labor Absorption in the Philippines, 1956-73," *PEJ*, (30), 1976, pp. 192-193.

Table 5.7
EMPLOYMENT GENERATION IN THE INDUSTRY SECTOR, 1957 to 1978
(in thousands, except per cent)

Employment Generation Index	Mining & Quarrying			Manufacturing			Electricity, Gas, water and Sanitary Services			Construction			Transport, Storage & Communication		
	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978
Net total annual changes	1	28	12	159	260	327	2	33	16	84	123	69	101	191	161
Average net annual employment generation	0.1	4	2	23	37	47	0.3	5	2	12	18	10	14	27	23
Net total employment generation as a percentage of the sector's 1957/1964/1971 employment level	3.4%	93.3%	20.7%	15.5%	22.0%	22.7%	10.0%	150.0%	29.1%	36.4%	39.0%	15.8%	44.1%	57.9%	30.9%
Net total employment generation as a percentage of net total employment generation in the I sector	0.3%	4.4%	2.1%	45.8%	40.9%	55.9%	0.6%	5.2%	2.7%	24.2%	19.4%	11.8%	29.1%	30.1%	27.5%
Net total employment generation per industry as a percentage of the net total employment generation in the economy	0.05%	1.4%	0.3%	7.4%	13.0%	9.3%	0.09%	1.7%	0.5%	3.9%	6.2%	1.9%	4.7%	9.6%	4.6%

Source: R. L. Tidalgo, "Labor Absorption in the Philippines, 1956-73" *PEJ* (30), 1976, Table 4.2 except for the inclusion of the March survey data in the averaging of the 1957 employment data andTable 5.4 of this text.

71 through 1971-78 (Table 5.8). Its share of the "services" sector's total employment generation increased from 31.8 per cent in the first period to 47.1 and 67.2 per cent in the second and third periods, respectively.

Those in the government, community, business and recreation services came second only to agriculture in employment generation. Both commerce and personal services experienced a decline in their relative share of the sector's employment generation from 1957-64 to 1971-78. In 1956-64, commerce experienced the highest employment generation in terms of all the measures used except in its employment growth rate.

Employment Generation, 1971-78

During the seven-year period 1971-78, 3.5 million employment was generated or an annual average of half a million (Table 5.9). Of this employment generation, "agriculture" accounted for more than half (57.7 per cent) followed by "services" (25.7 per cent) and "Industry" (17.3 percent). Let us now examine every sector.

Agriculture. Table 5.10 gives a breakdown of employment generation in "agriculture" from 1971 to 1978.[2] Crops constituted the largest sub-industry in agriculture. Breakdown by crops' subsectors, during the period 1971-75 shows that palay and corn farming generated the largest employment at 1.3 million, followed by coconut farming at 0.3 million, other crop production (fruit trees, vegetable and root crops) at 0.2 million, sugar farming at 55 thousand, abaca and fabric farming at 5 thousand and lastly, tobacco farming, at 13 thousand. In 1971-78, the crops sector generated 84.4 per cent of the total employment generated in "agriculture." The rest came from livestock and poultry farming with 9.8 per cent; fishing, hunting, trapping and game production accounted for 6.0 per cent and the rest from agricultural services amounted to 1.0 per cent. The only sector with a negative net employment generation during the period was forestry and logging which lost 16 thousand employment.

There were dramatic changes in the employment generated by

2. Table 5.10 must be used with extreme care because this breakdown of employment was not used in all the surveys done, hence the employment totals do not coincide with those of the one-digit industrial breakdown of employment in this section. Table 5.10 is intended to give us some information on the relative importance of the sub-industries in employment generation.

Table 5.8
EMPLOYMENT GENERATION IN THE SERVICES SECTOR, 1957 to 1978
(in thousands, except per cent)

Employment Generation Index	Commerce[a]			Government, Community, Business and Recreational Services			Personal Services[b]			Industry not Reported		
	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978	1957-1964	1964-1971	1971-1978
Net total annual changes	333	383	257	214	582	608	162	261	8	(35)	8	31
Average net annual employment generation	48	55	37	31	83	87	23	37	0.1	(5)	1	4
Net total employment generation as a percentage of the sector's 1957/1964/1971 employment level	41.6%	33.8%	16.9%	54.5%	95.9%	51.1%	33.7%	40.6%	0.9%	(60.3%)	34.8%	100.0%
Net total employment generation as a percentage of net total employment generation in the S sector	49.4%	31.0%	28.4%	31.8%	47.1%	67.2%	24.0%	21.1%	0.9%	(5.2%)	0.6%	3.4%
Net total generation per industry as a percentage of the net total employment generation in the economy	15.5%	19.2%	7.3%	9.9%	29.2%	17.3%	7.5%	13.1%	0.2%	(1.6%)	0.4%	0.9%

[a]Includes "Wholesale and Retail Trade" and "Financing, Insurance and Real Estate".
[b]Includes "Personal Services other than Domestic" and "Domestic Services".

Source: R.L. Tidalgo, "Labor Absorption in the Philippines, 1956-1973," *PEJ* (30), 1976, Table 4.3 except for the inclusion of the March survey data in the averagingg of the 1957 employment data where the March survey was included in the computation of the annual average

Table 5.9
EMPLOYMENT GENERATION BY BROAD INDUSTRY GROUPING
1971 to 1978
(In thousands, except per cent)

Year	Annual Change in Employment			
	Agriculture	Industry	Services	All Industries
1971-1972	816	(109)	(119)	588
1972-1973	399	45	172	616
1973-1974	421	(19)	34	435
1974-1975	(94)	154	197	258
1975-1976	(122)	112	102	92
1976-1977	(120)	129	85	94
1977-1978	732	273	434	1439
Net total	2032	585	905	3522
Average net annual employment generation	290.3	83.6	129.3	503.1
Net total employment generation as a percentage of the sector's 1971 employment level	33.4%	23.3%	24.9%	28.8%
Net total employment generation per sector as a percentage of net total employment generation in the economy	57.7%	16.6%	25.7%	100.0%

Source: Based on Table 5.4

the sub-sectors in "agriculture." For example, in 1971-72, palay and corn farming, coconut farming, other crop production, and fishing, hunting, trapping and game production each experienced large changes in employment ranging from 120 thousand to 352 thousand. Then by 1972-1973, palay and corn farming experienced a .7 million increase in employment. In 1976-77, all the crops taken together suffered a decline of .8 million employment which was partly re-

Table 5.10
BREAKDOWN OF EMPLOYMENT GENERATION IN SOME INDUSTRIES, 1971 to 1978
(In thousands, except per cent)

Industry	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	Net total employment generation 1971-78	Net employment generation (+/—) of sub industry as % of the total (+/—) for the industry, 1971-78	
Agriculture, Forestry, Hunting & Fishing	832	535	269	41	358	(735)	732	2,032	100.0	(100.0)
Palay & corn farming	352	690	(66)	116	226					
Sugarcane farming	28	(47)	60	(46)	60					
Tobacco farming	39	(30)	69	(106)	15					
Abaca & fibers farming	6	(4)	4	(8)	7					
						(828	624	1,728	84.4	
Coconut farming	126	36	32	57	90					
Other crop production (fruit trees, vegetable root crops)	120	(18)	108	12	(26)					
Livestock & poultry farming	(9)	(4)	11	14	5	87	97	201	9.8	
Agricultural services	1	9	6	3	(3)	9	(4)	21	1.0	

Forestry & logging	(1)	(27)	(0.3)	(16)	(0.3)	22	11	(16)		(100.0)
Fishing, Hunting, Trapping& game propagation	169	(69)	45	14	(15)	(25)	4	123	6.0	
Mining & Quarrying	(0.2)	0.2	(11)	7	3	6	8	12	100.0	
Coal & Metal Ore Mining	(6)	3	(7)	7	2					
Other Mining & Quarrying	5	(2)	(4)	1	1					
Manufacturing	(21)	2	25	204	29	(142)	232	327	100.0	(100.0)
Food Manufactures	13	(4)	(2)	1	12					
Beverage Industries	(2)	(0.4)	(2)	5	2	24	59	104	24.8	
Tobacco Manufactures	8	(3)	(7)	(2)	2					
Textile Manufactures	(10)	(18)	(3)	80	5					
Footwear, Other Wearing Apparel, Made-Up Textile Goods	(27)	(1)	27	(3)	9	(13)	51	91	21.7	
Wood & Cork Products Except Furniture	(5)	4	(13)	4	51					
Furniture & Fixtures	(6)	7	3	5	0.3	(7)	38	81	19.3	
Paper & Paper Products	0.4	1	2	0.2	3					
Printing, Publishing & Allied Industries	1	(5)	3	(2)	(3)	8	3	11	2.6	
Leather & Leather Products except Footwear & Other Wearing Apparel[1]1	(3)	0.5	4	6	(13)					
Rubber Products	1	7	(1)	0.3	1					
Chemical & Chemical Products	6	(4)	11	4	0.2	(2)	7	28	6.7	
Products of Petroleum & Coal	(1)	(1)	(2)	2	(2)					
Non-Metallic Products except Products of Petroleum & Coal	10	(11)	0.1	6	(8)	(29)	4	(28)		(30.4)
Basic Metal Industries	0.5	2	2	(2)	9	(0.4)	14	25	6.0	

Table 5.10 (Continued)

Industry	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	Net Total employment generation 1971-78	Net employment generation (+/—) of sub industry as % of the total (+/— for the industry, 1971-78
Metal Products except Machinery and Transport Equipment	1	(9)	8	9	(7)				
Machinery except Electrical	(13)	(1)	(3)	9	1				
Electrical Machinery, Apparatus, Appliances & Supplies	(6)	5	7	0.4	(1)	(113)	16	(64)	(69.6)
Transport Equipment	10	9	(8)	15	7				
Miscellaneous Manufactures	1	21	(3)	68	(40)	(8)	41	80	19.1
Electricity, Gas, Water and Sanitary Services	(13)	(5)	1	6	0.09	24	1	16	100.0
Construction	(9)	(3)	(31)	62	35	(3)	18	68	100.0
Road & bridge construction	(6)	2	(17)	25	(11)				
Building construction	(5)	(8)	(22)	34	32				
Others	2	2	8	3	13				
Transport, Storage & Communications	(29)	26	(7)	(18)	58	117	16	162	100.0

Land transport	(4)	8	(14)	(13)	46					
Water transport	18	20	11	11	(5)					
Air transport	(0.06)	2	(2)	3	3	106	14	141	87.0	
Services incidental to transport	(50)	(5)	(3)	2	15					
Storage & warehousing	0.5	1	(2)	3	(4)	3	3	4	2.5	
Communications	6	(0.4)	3	(0.7)	3	6	(1)	16	9.9	
Wholesale & Retail Trade	63	(31)	(27)	61	220	(343)	251	196	100.0	(100.0)
Wholesale trade	(18)	(32)	1	10	(19)	25	2	(31)		(100.0)
Sari-sari stores	27	(66)	(27)	(13)	107					
Hawking & peddling	(12)	16	(22)	(10)	79	(368)	252	229	100.0	
Other retail trade	66	52	20	74	54					
Financing, Insurance, Real Estate										
Banking institutions	4	29	3	3	20	(4)	5	60	100.0	
Financial intermediaries	0.06	17	8	3	20	(8)	1	40	66.7	
Insurance	(2)	7	1	(0.3)	4	(1)	6	14	23.3	
Real estate	6	5	(6)	0.5	(4)	5	(1)	6	10.0	
Government, Community, Business & Recreational Services	(104)	76	31	141	167		146	608	100.0	
Public schools	(46)	39	18	35	22					
Private schools	(7)	15	(5)	5	19	(29)	32	105	17.3	
Schools not elsewhere specified	(0.6)	0.5	–	1	(0.3)					

Table 5.10 (Continued)

Industry	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	Net total employment generation 1971-78	Net employment generation (+/—) of sub industry as % of the total (+/—) for the industry, 1971-78
Government services except school	(10)	21	7	66	95	179	114	405	82.8
Private community, business & recreational services	(40)	1	12	33	31				
Domestic Services	(27)	104	(34)	104	10	(234)	79	8	(100.0)
Personal Services other than Domestic	(2)	(9)	11	1	4				
[1]									

[1] Starting 1976, this Industry Group has been included in "Textile Manufactures and other wearing apparel."

Note: All figures from 1972-1973 to 1976-77 are different from other employment generation figures due to differences in survey months averaged to obtain employment data: 1972 — 3 months, 1973 — 3 months, 1975 — 1 month, and 1976 — 1 month.

Source: NCSO, *National Survey of Household Bulletin* (formerly *The BCS Survey of Households Bulletin*) for figures up to 1976 and *Integrated Survey of Households Bulletin* for 1977 and 1978.

versed by a .6 million increase in employment a year after. These changes in employment need to be explained. Agriculture, being the largest sector, is likely to have a substantial marginal subsector. Hence, when the rest of the economy expands to create better employment opportunities, workers leave agriculture to seek these opportunities. A reverse situation leads to opposite results. Dramatic employment changes on the other hand might be explained by considerations other than migration. To what extent were these changes due to variations in enumeration biases? To what extent were they real? How were they influenced by government policy?

Industry. Manufacturing generated the largest employment in the industry sector with 55.9 per cent, followed by transport, storage and communication with 27.5 per cent, then construction with 11.8 per cent, utilities with 2.7 per cent, and mining and quarrying, 2.1 per cent (Table 5.11). Manufacturing contributed 9 per cent to total employment generation. Viewed against the incentives provided by the government for this subsector since 1950s, manufacturing's employment generation is disappointingly low.

A breakdown of the employment generation of the manufacturing sector is presented in Table 5.10. A detailed breakdown of employment generation in manufacturing is available only for the period 1971-76, thus, a look at this period is important before summarizing the overall employment generation in 1971-78 for a broader grouping of the sub-sectors. In 1971-76, textile manufacture generated the most employment at 54 thousand, followed by wood and cork products at 41 thousand, then transport equipment at 33 thousand, and food manufactures, 20 thousand. The others had smaller employment generation during the period. The greatest increase in employment occurred in 1974-75 and mainly in textile. Taking the employment generation of 1971-78 and using a broader subsectoral grouping, food, beverage and tobacco manufactures accounted for the greatest share (24.8 per cent) of the total employment generation. Second was textile, footwear and other wearing apparel, 21.7 per cent, then wood and cork products, and furniture and fixtures accounting for 19.3 per cent. The leather, rubber, chemicals and petroleum products accounted for 6.7 per cent. The basic metal industries generated 6.0 per cent and the rest, miscellaneous manufactures, accounted for 19.1 per cent.

A group of manufacturing industries had a negative employment generation during the period 1971-78. The non-metallic products except products of petroleum and coal suffered a 28 thousand dec-

Table 5.11
EMPLOYMENT GENERATION IN THE INDUSTRY SECTOR
1971-1978
(in thousands, except per cent)

Year	Annual Change in Employment				
	Mining & Quarrying	Manufacturing	Electricity, Gas, Water & Sanitary Services	Construction	Transport, Storage & Communication
1971-1972	(6)	(47)	(13)	(9)	(35)
1972-1973	9	10	(5)	9	22
1973-1974	(14)	36	1	(44)	2
1974-1975	2	104	6	44	0
1975-1976	66	(4)	11	25	73
1976-1977	7	(4)	15	26	83
1977-1978	8	232	1	18	14
Net Total	12	327	16	69	161
Average net annual employment generation	1.7	46.7	2.3	9.9	23.0

Net total employment generation as a percentage of the sector's 1971 employment level	20.7%	22.7%	29.1%	15.8%	30.9%
Net total employment generation as a percentage of net total employment generation in the I sector	2.1%	55.9%	2.7%	11.8%	27.5%
Net total employment generation per industry as a percentage of the net total employment generation in the economy	0.3%	9.3%	0.5%	2.0%	4.6%

SOURCE: Based on Table 5.4

line in employment which happened mostly during the period 1976-77. Metal products, machinery and electrical apparatus, appliances and supplies, and transport equipment as a group suffered a 64 thousand decline in employment with most of it occurring also in 1976-77.

Looking over the data in manufacturing, it is important to find out what reasons might explain the large negative or positive net employment generation in particular major manufacturing groups and how government incentives or disincentives influenced these changes. For example in 1971-72, footwear and other wearing apparel suffered a decline of 27 thousand in employment. A year later, 1972-73, textile manufactures suffered an employment decline of 18 thousand. Then in 1973-74, footwear and other wearing apparel experienced an increase in employment of 27 thousand. In 1974-75, textile manufactures generated an 80 thousand employment while miscellaneous manufactures generated 68 thousand. In the succeeding year, 1975-76, the wood and cork products generated 51 thousand while miscellaneous manufactures suffered a 40 thousand decline in employment. In 1976-77, there was a 29 thousand decline in employment in the non-metallic products except products of petroleum and coal. When the groups were further combined, a big decline of 113 thousand in the metal products, machinery and electrical manufactures by 1976-77 was found. An analysis of these big employment changes will require an even more disaggregated industrial breakdown of employment.

Another subsector of "industry" with an employment breakdown is construction. In 1971-76, building construction generated the most employment.

Among transport, storage and communication, the transport subsector generated the most employment. Of the subgroups in the transport industry, water was first, followed by land transport. There was a spur of employment generation in land transport in 1975-76 while that of water transport increased continuously every year from 1971 except in 1975-76. By 1976-77 there was a dramatic increase in employment generation of 117 thousand in the whole transport industry.

Services. As mentioned earlier, the two subsectors which generated the most employment during the period 1971-78 were government, community, business and recreational services which accounted for 67.2 per cent of total employment generated in the sector and commerce which generated 28.4 per cent (Table 5.12) Personal

Table 5.12
EMPLOYMENT GENERATION IN THE SERVICES SECTOR, 1971 to 1978
(In thousands, except per cent)

Year	Annual Change in Employment			
	Commerce[a]	Government, Community, Business & Recreational Services	Personal Services[b]	Industry not Reported
1971-1972	41	(107)	(34)	(19)
1972-1973	7	52	89	24
1973-1974	(6)	59	(11)	(9)
1974-1975	40	92	56	11
1975-1976	(42)	179	(79)	48
1976-1977	(41)	192	(92)	25
1977-1978	257	146	79	18
Net total	257	608	8	31
Average net annual employment generation	36.7	86.9	1.1	4.4
Net total employment generation as a percentage of the sector's 1971 employment level	16.9%	51.1%	0.8%	100.0%

Table 5.12 (Cont.)

Year	Annual Change in Employment			
	Commerce[a]	Government, Community, Business & Recreational Services	Personal Services[b]	Industry not Reported
Net total employment generation as a percentage of the net total employment generation in the S sector	28.4%	67.2%	0.9%	3.4%
Net total employment generation per industry as a percentage of the net total employment generation in the economy	7.3%	17.3%	0.2%	0.9%

[a] Includes 'Wholesale and Retail Trade' and 'Financing, Insurance and Real Estate'

[b] Includes 'Personal Services other than Domestic' and 'Domestic Services'

SOURCE: Based on Table 5.4.

services accounted for only 0.9 per cent.

Table 5.10 gives a further breakdown of commerce into wholesale and retail trade, and financing, insurance and real estate. Among the categories under the wholesale and retail trade, the other retail trade was the largest employment generating group in 1971-76 (266 thousand). It was followed by hawking and peddling with 51 thousand and finally, *sari-sari* stores with 28 thousand.

The changes in employment generation in these groups were peculiarly large. For example, other retail trade experienced a 66 thousand employment generation in 1971-72, 52 thousand in 1972-73, 74 thousand in 1974-75, and 54 thousand in 1975-76; *sari-sari* stores suffered a drop in employment of 66 thousand in 1972-73 and experienced an increase of 107 thousand in 1975-76; by 1976-77, all of retail trade suffered an employment decline of 368 thousand which was partly reversed by an increase of 252 thousand in 1977-78. These large annual changes might be indicative of the flexibility of the sector in creating employment since it is likely to be a marginal sector. People are attached to the sector when they cannot find better employment elsewhere but leave it as soon as they do. But then again, how much of these changes are partly biases of the surveys?

A smaller subsector in commerce is financing, insurance and real estate. During the period 1971-78, the banking institutions and financial intermediaries accounted for the largest employment generation of 66.7 per cent, followed by insurance with 23.3 per cent and lastly real estate, 10.0 per cent (Table 5.10). There were dramatic increases in employment generation for banking institutions and financial intermediaries in 1972-73 of 17 thousand and in 1975-76 of 20 thousand.

Another industry in the S sector is government, community, business and recreational services. This industry which ranks second only to agriculture in net total employment generation in 1971-78 includes schools, government services except schools, and private, community, business and recreational services. The school subsector accounted for 17.3 per cent of the S sector's employment generation while the non-school subsector generated 82.8 per cent. (Table 5.10). For the period 1971-76, public schools generated 71.6 per cent of employment in schools while government services except schools generated 82.9 per cent of employment in the non-school subsector. If these proportions are applied to the corresponding net employment generation of the subsectors for the period 1971-78,

i.e., 71.6 per cent of 105 thousand and 82.9 per cent of 504 thousand, then the government sector's total employment would make the government account for 81.1 per cent of the total employment generated by the whole industry. Its net employment of 493 thousand would rank it second to agriculture's 2032 thousand during 1971-78 (Table 5.10).

Once more there are large changes in employment generation within the industry. For example, the public school system suffered a decline in employment of 46 thousand in 1971-72 then an increase of 35 thousand in 1974-75. The government services except schools and an increase in employment of 66 thousand in 1974-75 and 95 thousand in 1975-76. In the case of private, community, business and recreational services, it suffered a 40 thousand decline in employment in 1971-72, a 33 thousand increase in 1974-75 and 31 thousand in 1975-76. All these large changes need to be explained.

Finally the last sector in the services group is personal services. Judging from the 1971-76 figures which provide a breakdown of its employment, the domestic services accounted for the larger employment generation (Table 5.10). Once again there were large changes in employment generation for the period. It was also the only industry which experienced the biggest decline in employment generation. (210 thousand) during the period. The erratic and large changes in employment may be explained partly by the relative freedom of entry and exit in the industry. It would be interesting to link these changes to migration patterns in the seventies since most of those who joined the domestic services most likely came from the rural sectors. Once alternative employments cropped up, there was a decline in the sector's employment.

In summary, there was a gradual shift of employment from "agriculture" to "services" more than to "industry" from 1957 to 1978. But "agriculture" remained the major employment generating sector with the crops as its best perfoming sub-sector. Manufacturing continued to be the largest employment generating sub-sector of "industry" but it accounted for only 9.3 per cent of the total employment generation in the economy. In services, the employment generation was dominated by government, community, business and recreational services, and commerce.

A more disaggregated breakdown of employment generation by industry showed larger annual fluctuations which need to be explained. How much of these are statistical aberrations and how much are real? How were the real fluctuations influenced by government

policy? Large employment fluctuations mean large employment turnover which when negative spells hardships on the labor force and therefore is another dimension of the employment problem that needs looking into.

The description of employment generation in this section was based on the account of the annual net employment changes. In the next section another dimension of the employment performance using the employment growth rate is described in an attempt to explain its levels by industry.

An Analysis of the Employment Trend

Employment is defined by the extent of labor use in different production sectors. An analysis of the employment trend in an economy will have to address the determinants of the extent of labor employment relative to other factors. The extent of labor use is influenced by the level and mix of output, the technologies used and the relative availability of inputs which is supposed to be reflected in the relative factor prices.

The level and mix of output is the product of the level and structure of demand which is determined primarily by the income and wealth distribution in a society. If this distribution is relatively unequal, the market-determined production would cater to a smaller group with the greater purchasing power in the economy whose taste is more inclined toward goods produced by relatively capital intensive technology rather than the labor-intensive wage goods mostly demanded by the lower income/wealth households.

The technology used is the product usually of the relative factor prices as indicators of the relative scarcities of inputs and scale considerations. However, equally important are the influences of historical and institutional considerations which really determine the availability and accessibility of different types of technology and how choices are made by entrepreneurs.

Ideally, an analysis of the employment in an economy should include an empirical assessment of these determinants. But problems of inadequate data and especially limited time, among others, led to use of a heuristic framework which was earlier used by Oshima (1971) to analyze the labor absorption by sector in East and Southeast Asia after the Second World War. Oshima used the employment-income growth elasticity concept, i.e., the ratio of growth of employment (Gn) to the growth of income (Gy) or Gn/Gy. By definition,

Gn/Gy = (ΔN/N)/(ΔY/Y), hence, Gn = Gy (Y/N) (ΔN/ΔY). This framework enables one to explain the growth of employment in terms of the growth of output (Gy), the productivity per person engaged (Y/N) and the incremental labor-output ratio (ΔN/ΔY), each of which directly influences the employment growth. The higher the Gy, the higher the growth of employment, given Y/N and ΔN/ΔY. Oshima explains the term Y/N or net output per person engaged as a measure of the mixes of capital, labor, public infrastructure, output, technology, institutions and beliefs and their interactions with each other, all of which may be changing substantially in less developed countries. Hence, the concept Y/N may be regarded as a measure of productivity per person engaged, which is different from productivity contributed by a worker. Although some may use this concept to indicate capital intensity (and its inverse, N/Y, may be used to measure labor intensity) and therefore may pose a contradictory influence on Gn, it is part of a computational definition and is to be interpreted as linked with the growth of output influence, that the higher the productivity per worker engaged, the greater the potential for output growth. The last term, the incremental labor-output ratio or ΔN/ΔY is clearly positively related to Gn. This framework is intended to assess the relative employment generation of the different sectors by characterizing each sector's Gn in terms of its Gy, Y/N, and ΔN/ΔY. The results indicate different sectoral output growths, productivities, and incremental labor-output ratios which can be the targets for government policy. Policy to influence a sector's Gn may then be directed at each or combinations of these three sectoral characteristics.

Once more, the empirical analysis will cover the period 1957 to 1978 divided into the three seven-year periods used in the preceeding section. Table 5.13 summarizes the values of Gn, Gy, Y/N and ΔN/ΔY by industry.

The economy-wide Gn decreased from 3.4 per cent to 2.5 per cent from 1957-64 to 1964-71, then increased to 3.6 per cent in 1971-78. Both Gy and Y/N continuously increased throughout the three periods while ΔN/ΔY decreased dramatically by the second period which explains the drop in Gn. By the third period, the increases in Gy and Y/N were able to compensate for the still low ΔN/ΔY and to make the Gn rise again.

Agriculture. The overall Gn continued to be dominated by that of agriculture whose share of employment, though declining, still

Table 5.13

EMPLOYMENT AND OUTPUT GROWTH RATES (G_n AND G_y)[a], OUTPUT PER PERSON EMPLOYED (Y/N) AND INCREMENTAL LABOR-OUTPUT ($\Delta N/\Delta Y$) BY INDUSTRY, 1957 TO 1978

Industry	1957-74				1964-71				1971-78			
	G_n (%)	G_y (%)	Y/N (₱000)	$\Delta N/\Delta Y$ (worker per ₱000)	G_n (%)	G_y (%)	Y/N (₱000)	$\Delta N/\Delta Y$ (worker) per (₱000)	G_n (%)	G_y (%)	Y/N (₱000)	$\Delta N/\Delta Y$ (worker per (₱000)
All Industries	3.38	4.09	2.98	0.27	2.54	4.55	3.14	0.17	3.61	5.66	3.62	0.16
Agriculture	3.00	3.28	1.74	0.52	0.29	4.40	1.78	0.03	4.11	4.28	2.37	0.40
Industry	2.93	4.49	4.32	0.15	4.11	5.12	4.81	0.16	2.99	8.12	5.17	0.06
Services	4.69[b]	4.63	5.28	0.20	5.95[b]	4.25	5.22	0.29	3.17	4.69	4.64	0.14
Agriculture, Fishery, Forestry and Hunting	3.00	3.28	1.74	0.52	0.29	4.40	1.78	0.03	4.11	4.28	2.37	0.40
Mining and Quarrying	0.48	1.21	12.10	0.03	9.42	13.60	12.73	0.05	2.69	3.00	17.07	0.05
Manufacturing	2.06	5.22	3.84	0.09	2.84	5.48	4.79	0.10	2.92	6.78	5.76	0.06
Electricity, Gas and Water	1.91	1.51	10.93	0.12	12.73	7.48	10.63	0.20	4.11	8.66	7.36	0.05
Construction	4.43	3.00	5.79	0.27	4.71	0.02	5.24	61.50	2.06	15.51	3.77	0.02
Transport, Storage and Communication	5.22	4.93	3.57	0.30	6.52	5.28	3.50	0.37	3.85	7.39	3.21	0.14
Commerce	4.97	4.24	7.26	0.17	4.17	4.00	6.89	0.15	2.24	4.35	6.81	0.07
Government, Community, Business and Recreational Services	5.10	5.01	3.83	0.27	7.40	4.66	3.81	0.46	3.68	5.21	3.14	0.21
Domestic Services												
Personal Services other than Domestic												
Not Reported[c]	(13.21)				4.26				9.90			

[a] "N" is employment in thousands; "Y" is national income, 1972 prices, in million pesos. Y/N is computed from the Y and N at the beginning of each period.

[b] The employment under industry not reported is included in the services sector.

[c] This category does not have values for G_y, Y/N, and $\Delta N/\Delta Y$ because all outputs in a given period are classified by industry.

Source: Table A-6.

accounted for at least half even by the 1970s (Table 5.5). Agriculture's Gn was 3.0 per cent in the first period, dropped to 0.3 per cent in the second, and rose to 4.1 per cent, topping those of industry and services, by the third period (Table 5.13). The drop in the second period is explained by the big decline in $\Delta N/\Delta Y$ which should be interpreted with care as it could be a statistical aberration. The sector's output grew at 3.3 per cent, 4.4 per cent and 4.3 per cent from the first to the third period while its annual productivity per person engaged improved from ₱1,740 to ₱2,370 by the third period and was always the lowest among the three broad sectors in each period. Also to be expected was its large $\Delta N/\Delta Y$ which was highest except in 1964-71.

A more disaggregated industrial Gn, Gy, Y/N and $\Delta N/\Delta Y$ for 1971-78 is given in Table 5.14.[3] The highest GN in "agriculture" was in livestock and poultry farming and agricultural services. The former also had the highest $\Delta N/\Delta Y$. However these two were relatively small subsectors. The crops which dominated the employment generation in the sector (Table 5.10) was not far behind livestock and poultry farming in its $\Delta N/\Delta Y$ nor in output growth but it was far behind in productivity per worker.

Agriculture will likely continue to be the largest employment generating sector not only because of its largest employment share but also because of its relatively larger, if not, largest $\Delta N/\Delta Y$. It is therefore a sector for continuous policy study.

Industry. Hopes for industrialization have always been pinned on the industry sector, and in particular on the manufacturing subsector. Industry's relative Gn was lowest for the first and the third period, 2.9 per cent and 3.0 per cent respectively, although it was second in the middle period when it was highest at 4.1 per cent (Table 5.13). As a result of the policy bias of the government towards

3. Table 5.14 differs from Table 5.13 on two counts. First, Y is gross value added rather than national income and therefore higher than the latter. The needed disaggregated output figures are not available for the latter. This difference may lead to greater or lower Gys than those of Table 5.14 depending on the gross value added in 1971 and 1978 per industry. Both Y/N and $\Delta N/\Delta Y$ are also affected — an upward bias for the former and downward bias in the latter. Second, the total of the employments of the sub-industries in government, community, business and recreational services is less than the total for the industry which could not be explained by the agency collecting the data.

In spite of these differences, we still present these figures as rough approximations of the relative Gn, Gy, Y/N and $\Delta N/\Delta Y$ or sub-industries to give us a sense of how every sub-industry can have groups of different employment generation, and to present a more detailed description of industries which is necessary in studying employment.

Table 5.14

EMPLOYMENT AND OUTPUT GROWTH RATES (G_n AND G_y)[a], OUTPUT PER PERSON EMPLOYED (Y/N) AND INCREMENTAL LABOR-OUTPUT RATIO ($\Delta N/\Delta Y$) BY INDUSTRY, 1971-1978

Industry	G_n (%)	G_y (%)	Y/N (₱000)	$\Delta N/\Delta Y$ (worker per ₱000)
All Industries	3.6	6.2	4.37	0.12
Agriculture, Fishery, Forestry and Hunting	4.1	4.8	2.53	0.33
palay and corn farming	3.9	5.2	1.48	0.33
sugarcane farming				
tobacco farming				
abaca and other fibers farming				
coconut farming		4.7		
other crops production		25.6		
livestock and poultry farming	20.6	7.6	42.20	0.40
agricultural services	18.9	(n.a.)	(n.a)	(n.a.)
forestry and logging	(1.9)	1.7	7.48	0.09
fishing	3.0			
hunting, trapping and game propagation				
Mining and Quarrying	2.7	4.9	22.10	0.02
Manufacturing	2.9	7.4	8.74	0.04
food, manufactured	5.1	12.1	19.60	0.02
beverages		0.5	20.10	
tobacco products		(8.9)	32.72	

Industry	G_n (%)	G_y (%)	Y/N (₱000)	$\Delta N/\Delta Y$ (worker per ₱000)
textiles	1.9	6.8	2.82	0.29
footwear, other wearing apparel, leather & leather products		(5.1)	1.29	
wood and cork products	6.2	1.8	4.66	9.11
furnitures and fixtures except furniture		6.7	3.38	
paper and paper products	4.2	(5.6)	29.00	(0.17)
Printing, publishing and allied industries		1.3	10.32	
rubber products	5.4	48.	23.22	0.02
chemicals and chemical products		6.7	34.77	
products of petroleum and coal		8.1	85.36	
non-metallic products except products of petroleum and coal	(7.4)	1.9	6.32	(0.45)
basic metal industries	15.3	9.1	30.07	0.07
metal products except machinery and transportation equipment	(6.1)	12.3	10.34	(0.04)
machinery except electrical		18.5	4.83	
electrical machinery, apparatus, appliances and supplies		11.4	8.58	
transport equipment		5.8	6.82	
miscellaneous manufactures	20.6	(5.8)	6.56	(1.47)
Electricity, Gas and Water	4.1	8.0	10.65	0.05
Construction	2.1	16.3	4.31	0.02
Transport, Storage and Communication	3.9	10.3	4.19	0.07

land transportation	3.7		13.2	2.06	0.08
water transport			7.9	10.20	
air transport			6.2	31.33	
services incidental to transport			7.7	5.83	
storage and warehousing	7.3				
communication	5.5		11.7	9.71	0.04
Commerce	2.2		4.3	8.23	0.07
wholesale trade	(3.6)				
sari-sari stores					
hawking and peddling	2.3		5.8	5.00	0.05
other retail trade					
banks and other financial institutions	9.2		10.3	30.30	0.03
insurance	4.9		5.3	15.20	0.06
real estate	5.1		(3.9)	50.93	0.01
Government, Community, Business & Recreational Services[b]	5.9		5.5	5.26	0.19
public schools	2.9		4.4	2.98	0.20
private schools					
kind of school not specified					
government services except school					
private, community, business & recreational services[b]	4.2				
Domestic Services	11.4		1.4	14.61	0.19
Personal Services other than Domestic	0.1		0.4	0.78	0.89

[a] N = employment in thousands
Y = gross value added, 1972 prices in million pesos

[b] Includes 'Sanitary Services'.

Source of basic data: Employment data are from NCSO's unpublished tables on employment based on household surveys. Gross value added data are from the NEDA, *Philippine National Income Series*, Nos. 5, 7, 8 and preliminary estimates as of June 1981.

this sector, its Gy was the highest (except in 1957-64 when that of services topped it by a small margin) in the second and third periods especially in the third period (1971-78) when government policy favored it even more vigorously than in the past. Indicative of the resulting high capital intensity of the sector is the dramatic decline of its $\Delta N/\Delta Y$ in the third period.

Most of industry's subsectors had above (national) average Gys and (Y/N)s, and below (national) average ($\Delta N/\Delta Y$)s for the three periods (Table 5.13). Some of these dramatically different values would be worth analyzing in terms of their links with government policy action or inaction. The increase in the industry's Gn in the second period came from the increases in all of its subsectors' individual Gns. Utilities' Gn was highest (12.7 per cent), followed by mining and quarrying's (9.4 per cent), transport, storage and communication (6.5 per cent), construction (4.7 per cent) and manufacturing (2.8 per cent). These improved Gns could be explained mainly by the increases in their ($\Delta N/\Delta Y$)s and in their Gys (Except for construction).

By 1971-78 all of the subsectors' Gns declined with the exception of manufacturing whose Gn was lowest in the preceding period. A possible explanation for this is the decline in all the subsectors' ($\Delta N/\Delta Y$)s, with the exception of mining and quarrying whose impact on the Gns could not be compensated by the continuing rise in their Gys.

Among industry's subsectors, manufacturing had the largest average share (61 per cent) of the sector's total employment followed by transport, storage and communication (19 per cent), construction (17 per cent), mining and quarrying (2 per cent), and utilities (1 per cent) for the three periods, (Table A-7).[4] Manufacturing's share gradually declined while those of all the other sectors rose.

Of the manufacturing groups in the 1970s, basic metal industries had the highest Gn (other than the miscellaneous group) because of its high Gy and productivity (Table 5.14). Textiles, footwear, other wearing apparel, leather and leather products experienced the lowest (positive) Gn in spite of their relatively high $\Delta N/\Delta Y$; their productivities per worker were lowest and only output in textiles' grew. Wood and cork products, and furnitures and fixtures had the highest

4. Table A-7 gives a percentage distribution of employment by industry where "sanitary services" is transferred from the utilities in the industry sector to the services sector for consistency with Table 5.7.

$\Delta N/\Delta Y$. A few of the manufacturing groups had negative Gns, namely non-metallic products (except products of petroleum and coal), metal products, machinery, electrical apparatus, appliances and supplies, and transport equipment.

Transport, storage and communication was second to manufacturing in the count of net employment generation in 1971-78 (Table 5.11) and was second to the utilities in growth of employment (Table 5.13). A breakdown of this sub-sector in Table 5.14 shows storage and warehousing as having the highest Gn followed by communication then transport.

Services

Services' Gn outpaced that of industry for the three periods in spite of the latter's higher Gy in the second and third periods (Table 5.13). Its higher employment generation comes from its higher $\Delta N/\Delta Y$ relative to that of industry. The two sector's relative (Y/N)s during the first two periods run contrary to expectations. A lower productivity per worker is expected in services relative to that in industry as was observed in the third period. It was also second to agriculture in relative share of total employment which grew from 22.4 per cent in 1957-64 to 29.2 per cent in 1971-78 (Table 5.5).

The Gn in services rose from 4.7 per cent to 6.0 per cent in the second period when it was highest, then dropped to 3.2 per cent in the third period. Its Gn's fluctuations are explained mainly by changes in its $\Delta N/\Delta Y$. Both Gy and Y/N decreased during the three periods except for Gy in the third period. The high Gn of the sector from 1957 to 1971 supports the observation that the sector is a depository of excess agricultural labor, as described by its rising $\Delta N/\Delta Y$. But this trend was reversed in 1971-78. Data on the sector's subindustries (Table 5.14) show the very low $(\Delta N/\Delta Y)$s and high Y/N in commerce, especially real estate and financial institutions where modernization involves increasing capital intensity.

Services will continue to play the role of a marginal sector which absorbs labor which cannot be absorbed in the other two sectors. However, it will be transformed in time as urbanization and modernization become more pervasive. It will require more skilled people and will be characterized by a lower $\Delta N/\Delta Y$.

The level and industrial structure of employment in the 1970s relative to that of the 1960s and late 1950s is described here. The focus on the industrial description of employment is meant to reveal

not only the trend in industrial structure but also the employment generating ability of different industries. This is intended to monitor the outcome of government's policy which were directed at specific industries in achieving full-employment. A more disaggregated description of employment is necessary not only along industry lines but also for determining scale of production i.e., whether formal or informal and whether export producing or not. There is also a need for a more systematic assessment of policy impacts by the government to know the relative achievement of multiple objectives.

The development concern is expressed as a set of multiple objectives. There should be more output which have to be shared more equally. Inflation and unemployment should be avoided. These goals cannot be pursued one at a time or in isolation. That is one reason policy recommendations to increase employment are not introduced in the discussion of the relative employment growth performances of the industries. Policies to enhance employment only can be easily identified but they should not be formulated without considering the other objectives. The main policymaking process should not be on an *ad hoc* or reactive approach. The approach may be tolerated during emergency or crisis times but the managing of an economy should be done more systematically with hindsight and foresight.

Chapter 6

SUMMARY AND CONCLUSIONS

Review of Literature

This review of the employment literature in the 1970s concerntrated on studies which deal primarily with the demand side of the labor market and highlighted a number of policy-related issues which have emerged in recent years in the course of research on employment and unemployment.

A great deal of the literature on industrialization and employment in the Philippines contain extensive criticisms of the industrialization and trade startegies in the 1950s and the 1960s which favored relatively less use of labor. Because of the capital bias promoted by the structure of economic incentives during the import substitution phase, domestic production of finished industrial consumer goods substitutes was encouraged while imported raw materials, intermediate goods and capital goods were made available at artificially low prices. The resulting heavy import dependence of the industries in the 1950s led to a deterioration in the Balance of Payments which was addressed by policy reforms in the tariff system by the 1960s. However these policy reforms did not alter the earlier bias of the import substitution strategy. Hence, the previous bias against backward integration and production for export continued to stunt the growth of industries, concentrated industries in metropolitan areas especially Greater Manila, and neglected small and medium industries. The failure therefore of the industrial sector to create more jobs was due not only to the inability of output to expand but also to the nature of the industrialization process itself.

Available technology also influenced the pattern of industrialization along capital intensive lines. This bias was reinforced by imperfections in the market such as an overvalued peso making imported machinery cheaper, an interest rate structure favoring cheap capital acquisition by big firms, and tax incentives that encouraged capital intensity. Moreover, the failure to develop productive employment within the agricultural sector exacerbated the problem of unemployment as rural-urban migration was hastened.

The dominant view regarding labor absorption appears to be that government policies to promote labor intensive industries will play a key role in dealing with the unemployment problem. But the success

with which the government can promote labor intensive industries is limited by the extent of contradictions among the different objectives to which its industrialization policies are addressed, namely: output growth, employment generation, export promotion, the the use of a high proportion of domestic materials and regional industry dispersal. The contradictions among these different goals lie not only in the manner in which the incentives are given but also in the nature of the incentives themselves. Incentives are selectively given and have a predominantly capital-cheapening effect.

From the literature, there seems to be a consensus that the investment policies in the 1970s failed to alter to any appreciable degree the factor price distortions in the earlier decades. Thus, the direction of future policy should be towards getting factor prices right. But the choice of technology is not only affected by relative factor prices but by constraints on availability, accessibility, compatibility with existing factor inputs, and efficiency relative to production scale. It might therefore be overly optimistic to predict that a significant increase in employment would result by merely correcting the distortion in factor prices. In addition, the output mix which is defined by the distribution of income also plays an important role in the choice of technique. These considerations reveal the essentially private character of investment decision-making in the Philippine economy. Each firm strives to maximize some objective function subject to certain constraints which are particular to it, as well as based on information which is neither complete nor perfect.

On the whole, the literature on Philippine employment in the 1970s exhibited a strong bias towards an examination of the determinants of employment as well as the impediments to greater employment generation. However, it has apparently viewed the unemployment situation as merely the result of imperfections in the structure of relative prices arising from the implementation of incorrect policies. As a result, the solution to the problem of unemployment has been reduced to mere job creation, regardless of the terms at which the resulting employment might be obtained. It has not emphasized the role of income levels and income distribution. Existing studies have also not segregated the influence of relative factor prices and technology on labor absorption which, as mentioned earlier, could lead to over optimistic estimates of the impact of correcting factor price distortions on labor absorption. Furthermore, the scope for labor-capital substitution within a given production technology for the different industries has to be explored relative to the possibilities

for developing technology that could employ more labor without sacrificing productivity. Neither has there been a systematic study of the effect of output mix on employment, although it seems to be accepted that industries which cater to the needs of the low income strata tend to be more labor intensive as compared to industries which cater to the needs of the upper income strata.

The literature has extensively discussed the inability of the industry, specifically the manufacturing sector, to absorb entrants to the labor force, as well as migrants from the rural sector. However the conditions in the agricultural sector as a whole and the forces accelerating the displacement of the working force in this sector have escaped focus. It may be worthwhile looking into the changing conditions of agricultural employment especially since government programs may also be responsible, to some extent, for the displacement of workers. It is equally important to investigate the alternative employment opportunities open to displaced workers. The policy question that will flow from such researches will be the internal consistency of the government's development policies and programs and their overall impact on employment and labor welfare, among others.

Evaluation of Philippine Employment Statistics

Although our review of literature indicated an appreciation by academics of the development, as well, as refinement of labor force utilization concepts which are more applicable to LDCs and the Philippines in particular, there has been no systematic evaluation of the Philippine employment statistics. The Philippine employment statistics uses the labor force approach which is more suited to the modern economy of developed countries. The labor utilization in LDCs with relatively smaller modern sectors is more varied. Its seasonality, instability, part-time work, and importance of tradition in regulating employment may not be adequately captured by the labor force approach. The problem does not only lie in the conceptual framework but also in its operationalization. LDCs like the Philippines are not only disadvantaged by the use of an inappropriate conceptual framework but also by the lack of expertise and data processing facilities needed to undertake the measurement of labor utilization. Improving the quality of data collection is costly. Therefore the government will have to be selective in choosing the areas in its statistics collection in need of urgent improvement.

Attempts at designing more appropriate approaches to measure labor utilization or underutilization in LDCs such as the ODA, Hauser, UPPI, and Myrdal schemes point to a more detailed description of the production activities in these economies. These approaches give higher estimates of the labor underutilization in the Philippines.

The evaluation focuses on the employment data in the 1970s from the Integrated Survey of Households. The quality of the series was evaluated in terms of its consistency in population coverage, reference period, date of data collection and definitions of labor force statuses. Serious changes, especially in 1976, made the data series discontinuous in the 1970s. The possible biases arising from these changes were evaluated. However, the evaluation is still limited because it left out other possible problems in concepts used, timing and operationalization of employment data collection, enumeration errors, response errors, changes in sampling design (in May 1958, March 1971, 3rd quarter 1976 and 3rd quarter 1977) and other statistical methodology revisions, changes in assumptions of blowing-up procedure and changes in data processing which could all bias the data.

The evaluation itself points to the need for more systematic, accurate and punctual data collection. From 1956 through the 1970s, the NCSO published a wealth of information on employment and unemployment. However, in the 1980s, data processing problems have resulted in a backlog of information which are vital for research, planning and policy formulation.

Aside from data on employment and unemployment which are the major indicators of labor utilization, there is also a need to collect, process and analyze other data on vital dimensions of labor utilization. These other equally important details on the labor force could aid researchers, planners and policymakers in coming up with more effective programs and projects on Philippine employment.

Policy Environment of Employment in the 1970s.

This study could provide a starting point for policy mapping which can be a useful method for analyzing the directional impact of government policy measures on employment generation. This method is expected to identify gaps as well as inconsistencies in the set of government policies affecting employment. The precise magnitude or level of employment generated is not the main concern

here but the directional impact of policies taken individually and jointly, on employment.

The 1970s was characterized by an increased importance attached to development planning relative to earlier decades. The goals emphasized were the attainment of a high and sustained rate of economic growth, the promotion of self sufficiency in food, stability in prices, improved capacity for domestic resource utilization, a sound balance of payments position, and promotion of social development through creation of productive employment opportunities. While not reflected in the various development plans, the relative priority accorded each of the above goals is deducible from the actual implementation of specific government programs as well as from the relative concern and speed if not decisiveness with which the government has responded to problems.

Economic policy making in the Philippines holds that the private sector is a prime mover of development. As such, government support for private sector activities has been continually extended through various measures which influence the structure of economic incentives. Although private enterprise has been heavily relied upon to play an active role in the growth of the economy, the government sector has not restricted itself to a supportive role. In recent years, the government has actually engaged in activities which are capital intensive, pioneering, high-risk and vital to the national economy. This is done by providing long-term financing or by entering into joint ventures with the private sector.

In summary, government's efforts at encouraging capital formation and including greater output included extending fiscal and credit privileges to firms and industries in identified priority areas. The extent to which these incentives contributed to new investment and output expansion may have also contributed to labor absorption. Their effect on employment depends on a number of factors. First is whether they change output and in what direction. Second is on the proportion of labor to total input requirements and whether such proportion is variable and in what direction. The third factor is the complementing or contradicting effect of the same incentives on employment via technology and relative factor prices. The overall effectiveness of each of these incentives in expanding employment opportunities has to be considered relative to other policies which may or may not be consistent with the objective of employment generation.

Government statements recognize the encouragement of labor

intensive production as an officially accepted strategy for promoting greater employment opportunities in the Philippines. However, there are relatively few policy measures which may positively affect labor absorption. And of these few incentives, some have been sparingly used and others have been applicable only to limited sectors, e.g., export-oriented firms.

Very little effort was exerted to influence technology toward greater labor intensity in the 1970s. It seemed that government policy had been generally passive in this regard and that the choice of technique had been left to the profit maximizing calculi of the individual firms. In 1978, the industry ministry set up a board to oversee technology transfer arrangements. However, emphasis has been placed on foreign exchange considerations in the evaluation of technology transfer contracts as well as on curbing certain restrictive business practices related to technology transfer arrangements. Little has been done by way of enhancing labor utilization among firms through technological choice.

The institutional infrastructure to support various employment creating measures was strengthened in the 1970s through several presidential decrees. Government offices and programs were created to formulate plans and programs for the efficient allocation, development and utilization of the nation's manpower and to help meet the demand of the economy for trained manpower. At the same time other policy measures were implemented to reduce manpower supply by exporting labor through an overseas employment program in an effort to bring down unemployment in the Philippines. Public employment offices under the Labor Ministry were set up to protect workers going abroad. In 1978 the Bureau of Employment Services was tasked with the development and implementation of a comprehensive employment program.

In effect, the government policies contributing to employment generation which were formulated in the 1970s were intended to expand output, increase labor use, and streamline the institutional framework in support of the employment generation objective. The positive effects of government policies on employment growth emanate mainly from the influence which these policies exert on capital formation and output expansion. However they failed to generate a demand for labor which would eliminate the existing surplus. The employment growth has been limited by 1) other government policies which are inconsistent with the objectives of the different investment incentive packages, 2) the nature of the

economic incentives employed to encourage investments in preferred areas, and 3) to a lesser extent, certain institutional constraints.

The structure of protection gave some industries considerable home market protection. But their prospects for further output, expansion and employment generation were held down by the disincentive to export and the limited size of the domestic market. In addition, the bias in the structure of protection against the capital goods sector stunted the development of indigeneous capital goods industries in the economy. The economy thus could grow only at a pace allowed by developments external to it because the flow of foreign exchange in the form of export earnings, foreign investments and foreign credit or grants for the import of machinery and capital equipment greatly depends on the general health of the industrialized economies over which the Philippines has no control.

The economic incentives are generally intended to make investments more profitable but this is done primarily through subsidies that cheapen the cost of inputs especially imports and capital. Hence, while an increase in investments due to the incentives may result in new employment, the employment forthcoming is limited by the capital bias in the resulting structure of relative factor prices. The policy of subsidizing credit discriminates against small and presumably labor intensive firms when the ability to offer an acceptable collateral is related to the size of the firm and determines the extent to which firms are able to avail of the credit incentives. Also, the low interest rates constitute a disincentive to savings. As a result, it has encouraged people to put their savings in the short-term money market which made the mobilization of funds for long-term investment difficult and the cost of funds for borrowers more expensive in the long-run. This stunts the long-term growth of employment.

The third factor relates to the efforts of both government and labor unions to improve the welfare of labor but which cause distortions in relative factor prices resulting in less employment. It should be noted that the effect of labor legislation on relative factor prices depends on the coverage of such laws, the actual enforcement of these laws, and the relative strength of workers' organizations in demanding compliance by employers with these laws. The enforcement of the various laws is difficult not only because the government machinery may not be up to the task but more so because the workers themselves might prefer landing a job first, and higher wages and better working conditions second, on account of the high unemployment and underemployment. On the part of the employers,

they have means of circumventing these laws such as hiring on casual basis and keeping employees at an apprentice or learner status beyond the period allowed by law.

In the area of industrial relations, government policy appears to have been more supportive of employers rather than workers. The government's industrial relations policy seems to be the creation of an environment wherein economic activity may proceed uninterruptedly to prevent economic dislocations and to contribute to economic growth and employment generation. Thus, the bias of government legislations regarding industrial relations has been toward greater employment. Whether the terms of employment are acceptable or not to those employed is an altogether different matter. In effect, labor is being asked to forego increases in income in the interest of generating more employment. Therefore labor legislation in the present context cannot be considered a factor militating against the fuller employment of the country's labor reserve.

The Employment Experience in the 1970s

Because of discontinuities in the data, employment was described for the periods 1971-76 and 1976-78. The LFPR was 50.5 percent in the first period, rising to 61.7 percent in the second period. When adjusted to correspond to Myrdal's concept of labor reserve under a set of assumptions, it rose to 61.4 percent in the first period and 72.4 percent in the second period which comes to 17.5 million in the first period and 18.8 million in the second period. If we also adjust our count of labor underutilization to include the unemployed, the underemployed and the potential labor force members, then these would average 5.4 million annually during the first period and 6.8 million annually in the second period, or 31.1 percent and 36.5 percent, respectively. These estimates are much higher and spell a more serious underutilization problem in the 1970s than the count of unemployment of 5.0 percent during the 1970s.

An examination of the employment generation by broad industry grouping revealed a gradual shift of employment from "agriculture" to the "services" more than the "industry" from 1957 to 1978. "Agriculture" remained the major employment generating sector with crops as its best performing subsector. In "industry", manufacturing continued to be the largest employment generating subsector even as it accounted for only 9.3 percent of the total employment generated in the economy. In "services," the employ-

ment generation was dominated by government, community, business and recreational services and commerce.

A more disaggregated breakdown of employment generation by industry showed large annual fluctuations which need to be explained. How much of these are statistical aberrations and how much are real? How were the real fluctuations influenced by government policy? Large negative employment fluctuations imply layoffs or unemployment and would therefore be another dimension of the employment problem.

The relative employment generation of the different sectors was evaluated using a heuristic framework which characterized each sector's growth of employment in terms of each sector's growth of income, productivity per person engaged, and the incremental labor-output ratio. In the 1970s, "agriculture" experienced the highest growth in employment followed by "services" and lastly "industry". "Agriculture", inspite of its having the lowest growth of output and productivity per person engaged had the highest incremental labor-output ratio. On the other hand, "services" had a relatively high growth of output and productivity per worker engaged but had a lower incremental labor-output ratio. Finally, "industry" had the highest growth of output, and productivity per worker engaged but had the lowest incremental labor-output ratio.

The growths of employment of industries, based on a more disaggregated classification were examined. In the "industry" sector, the highest growth of employment was in the utilities, followed by transport, storage and communications, mining and quarrying, manufacturing and finally construction. Among these subsectors, transport, storage and communications had the highest incremental labor-output ratio; construction had the highest growth of output while mining and quarrying had the highest productivity per worker engaged. Based on the limited disaggregation in the two groups of the services sector, the non-commerce group dominated by government, community, business and recreational services had the higher incremental labor-output ratio compared to commerce. A more disaggregated industrial employment data was discussed to show the relative growths of employment among the different sub-industries. However, in spite of this level of disaggregation, a more disaggregated description is necessary not only along industry lines but also along characteristics such as scale of production, whether formal or informal, whether producing for export or not. The description of the growth of employment by sector may serve to guide policy in influ-

encing sectoral growth of output, productivity per worker engaged, or incremental labor-output ratio. However, this emphasizes that policies to enhance employment cannot be made in isolation, that there must be a macro framework within which to assess each policy's effects on a set of multiple goals.

Further Considerations

The initial survey of government policies shows that policies as a whole cannot be expected to contribute significantly to reducing unemployment. The multiplicity of objectives of such policies and the processes which they set into motion had mixed effects on employment. Increase in employment could have resulted from the various policies to increase investments and encourage new economic activities in the various sectors. But such increases could have been negated by the contradicting effects of other policies or of the same policies on labor use via their influence on relative factor prices and technology.

The attempt at policy mapping had merely pointed out the directional impact of various policies and programs on employment. Thus, net employment loss or gain resulting from the policies as a whole, cannot be stated although it may be argued that unemployment clearly exists and has persisted despite so many programs purported to alleviate it. Examining the net result of government policies on employment will require more detailed estimates of the amount of employment traceable to government policies, the relative sizes of the sectors affected by the policies, and the number as well as types of firms availing of the various incentives. Information on employment effects attributable to backward and forward linkages is also needed. So with information regarding the existing technologies in the sectors or firms affected by the policies, as well as measures of employment-output elasticities, substitution elasticities and so on. Information on the existence and availability of alternative technologies, or the capability, means, and practicability of developing these is also crucial if policy is to encourage labor intensity without sacrificing productivity.

Government policy can be instrumental in alleviating unemployment in less-developed economies through its influence on the rate of capital formation. The direction of capital formation seems to be more important, however, since this will determine the economy's ability to grow and therefore its labor absorption capacity.

Officially, an employment-creation strategy directed towards developing the labor-intensive industries and exploiting the potentials of the export market seems to be preferred. The policy setting in the seventies failed to reflect this official bias, however. Despite the failure of the import-substitution strategy to generate employment, and the official abandonment of such a strategy, the capital bias in the incentive structure persisted through the seventies. Have vested interests grown around the various subsidies to capital such that they could be withdrawn only with limited success and at the risk of antagonizing the interests that have been benefiting?

The success of the government's employment creation policies in the eighties will largely depend on the private sector's response to recent reforms in the structure of incentives (e.g. reform of interest rates, rationalization of fiscal incentives, lowering of tariffs, among others). The greater emphasis on labor use resulting from a change in factor proportions will likewise require that the necessary technology be available or that the economy be capable of developing one. This calls for substantial investments in research and technology development. An increase in labor use arising from a change in output mix depends upon the extent to which resources may be shifted to the production of labor-intensive goods for export, and on sustained government support for small-scale and cottage industries producing wage goods and services. The latter requires measures redistributing incomes to increase domestic demand for labor-intensive products. The former presumes a healthy demand for the country's exports which is a function of both the general health of the international economy, and continuing product improvement needed for successful entry into foreign markets and for which investment and state support will in turn be needed.

The time needed for the above measures to generate greater employment depends on how attractive the opportunities are for private investors and how fast they will react to such opportunities. Government support in terms of providing the necessary signals will still be crucial in determining the private sector's response. But capital accumulation, in the context described above, will take time as it is fraught with uncertainties. Thus, it would be too optimistic to expect any significant employment gains from such policies in the short-run.

It is ironic that the present policies could be making capital accumulation over time more difficult. First, there has been an undue emphasis, though not very successful, on the promotion of

labor-intensive industries at the expense of capital industries. Investment priority plans have existed since the late sixties, but there have been no clear-cut or sustained policy effort to develop capital goods industries as the backbone of the country's industrialization efforts. The absence of a capital base is a major impediment to subsequent capital investments, thus limiting the long-run capacity of the economy to absorb its working population. This is why the decision to establish industrial projects is in principle, welcome. It would be worthwhile studying the immediate and long-term implications of the proposed major industrial projects on the country's goals including employment generation. Second, there seems to be a growing dependence on foreign equity investments and loans as a source of investment finance. These capital inflows certainly contribute to increasing the capital stock and hence to employment creation. But, if they merely displace instead of augment domestic capital, they might not be contributing at all to employment. In addition, the resulting capital repatriation constitute a long-term leakage from the economy and thus tend to limit the prospects for capital expansion, growth and employment in the long run, That is why the question of nationality of ownership is also important. The least that can be done is to partake of the surplus of foreign firms through taxation and use the proceeds for capital expansion. However, the government is even foregoing some revenues by providing exemptions, deductions and tax credits for foreign investors. Finally, the soundness of anchoring the long-term growth of employment and output on exports is doubtful. The commitment of the economy's resources to production for a market over which policymakers have no control might prove to be more inefficient in the long-run. Given the inherent instability of that portion of the world economy to which the Philippines is increasingly exposing itself, and given the propensity of the government to rescue economically distressed firms, the upshot of an export-oriented growth policy could be a greater compulsion to extend more government resources to a firm or sector in the event that this has become unviable because so much has already been invested and that so many might lose their jobs.

In sum, the impetus to greater employment will continue to come from policies to expand output and encourage investments. The rate of capital accumulation depends on the size of the surplus generated from current production, as well as in the manner in which the surplus is used. Thus, the choice of investment is crucial in the

development process. Even more important, perhaps, is the question of who exercises the choice, and on what bases and in whose behalf it is made. The possibilities for expanding society's productive capacities will be greatly enhanced if investment decisions were more social than private in character. However, the mechanism for achieving this in the present context of private ownership of productive resources may not be found in the existing institutions.

Questions whose answers lie beyond present capabilities have been raised. Thus, no solutions are prescribed. Hopefully, the problems raised should be considered in formulating employment policy. Finally, even as continuing unemployment and underemployment will exert a downward pressure on wages, measures other than opposing minimum wage legislation should take priority for increasing employment.

APPENDIX TABLES

Table A-1
POLICIES AND PROGRAMS AFFECTING EMPLOYMENT IN THE 1970s

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
I. *BOI INCENTIVES*						
A. *Investment Incentives*	Sept. 1967	R.A. 5186				
1. Fiscal Incentives						
a) exemption from tariff duties and compensating tax on importations of machinery, equipment and spare parts	Sept. 1967	R.A. 5186	+	–	–	
b) exemption from all taxes under the National Internal Revenue Code, except income tax, on a gradually diminishing percentage (for pioneer industries)	Sept. 1967	R.A. 5186	+			
c) exemption from capital gains tax on disposition of capital assets provided proceeds of sales are invested in new issues of capital stock of a registered enterprise within six months from the date gains were realized	Sept. 1967	R.A. 5186	+	–		
d) tax exemption on sale of stock dividends provided sale occurs within seven years from date of registration	Sept. 1967	R.A. 5186	+			
e) tax credit equivalent to 100 percent of the value of compensating tax and customs duties that would have been paid on machinery and equipment and spare parts (purchased from a domestic manufacturer) had these items been imported	Sept. 1967	R.A. 5186	+		–	
f) tax credits equivalent to sales, compensating and specific taxes and duties on supplies, raw materials and semi-manufactured products used in the manufacture, processing or production of export products	Sept. 1967	R.A. 5186	+			
g) tax allowance to the extent of actual investment but not to exceed 10 per cent of taxable income	Sept. 1967	R.A. 5186	+		–	
h) deduction from taxable income in the year reinvestment was made of a certain percentage of the amount of undistributed profits or surplus transferred to capital stock for procurement of machinery and equipment and other expansion	Sept. 1967	R.A. 5186	+	–	–	
i) double deduction of promotional expenses for registered export firms		R.A. 5186	+			
j) double deduction of shipping costs for registered export firms	Sept. 1967 to Jan. 1973	R.A. 5186	+			
k) special tax credit on raw materials equivalent to 7% of total cost for registered export firms						
l) deduction from taxable income of direct labor cost and local raw materials used in the manufacture of export products, but not exceeding 25 percent of total export revenues for producers, 10 per cent for traders, and 50 percent for service exporters	Jan. 1973	P.D. 92	+		+	
m) deduction of labor training expenses from taxable income equivalent to half of expenses but not more than 10 percent of direct labor wage	Jan. 1973	P.D. 92	+		+	

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
n) post-operative tariff protection for pioneer industries	Sept. 1967	R.A. 5186	+			
o) accelerated depreciation	Sept. 1967	R.A. 5186	+		−	
p) carry-over as deduction from taxable income of net operating losses incurred in any of the first 10 years immediately following the year of such loss	Sept. 1967	R.A. 5186	+			
q) deduction of organizational and pre-operational expenses from taxable income over a period of not more than 10 years from start of operation	Sept. 1967	R.A. 5186	+			
r) tax credit for tax withheld on interest payments on foreign loans	Sept. 1967	R.A. 5186				
2. *Credit Incentives*						
a) preference in the grant of government loans	Sept. 1967	R.A. 5186	+		−, 0	
b) preference in the grant of SSS and GSIS loans for the purchase of shares of stocks in any registered enterprise	Sept. 1967	R.A. 5186	+		−, 0	
c) financial assistance from insurance companies	Sept. 1967	R.A. 5186	+		−, 0	
3. *Institutional Guarantees*						
a) anti-dumping protection	Sept. 1967	R.A. 5186	+			
b) protection from government competition	Sept. 1967	R.A. 5186	+			
c) protection of patents & other proprietary rights	Sept. 1967	R.A. 5186	+	−, 0, +		
d) the right to employ foreign nationals in supervisory, technical and advisory positions	Sept. 1967	R.A. 5186	+	−		
e) basic rights and guarantees under the Philippine Constitution	Sept. 1967	R.A. 5186	+			
f) right to repatriate investments and remit earnings subject to Central Bank regulations	Sept. 1967	R.A. 5186	−, +			
g) right to remit foreign exchange to service foreign loans and obligations arising from technological assistance contracts subject to Central Bank regulations	Sept. 1967	R.A. 5186	+	−		
h) freedom from expropriation of investments	Sept. 1967	R.A. 5186	+			
i) freedom from requisition of investments, except in the event of war or national emergency and only for the duration thereof	Sept. 1967	R.A. 5186	+			
B. *Foreign Business Regulation*	Sept. 1968	R.A. 5455				
1. permitting foreign investments without prior authority in any enterprise registered under the Investment Incentives Act to the extent that total investment is not more than 40 percent of the outstanding capital of the enterprise	Sept. 1968	R.A. 5455	+	−		
2. permitting foreign investments in any enterprise not covered by the Investment Incentives Act to the extent that total investment does not exceed 30 percent of the outstanding capital of the enterprise	Sept. 1968	R.A. 5455	+	−		
3. permitting foreign investments in an enterprise not registered under the Investment Incentives Act with equity greater than 30 percent of outstanding capital provided BOI authority is granted.	Sept. 1968	R.A. 5455	+	−		

Table A-1 (Cont.)

Government Policy	Date[b]	Legal Basis[a]	Indirect Effect on Employment Via: Output	Technology	Relative Factor Prices	Direct Effect on Employment
C. *Export Incentives*						
1. Fiscal, credit and institutional incentives (under A.1(a)-(n), 2(a)-(b), 3)	Aug. 1970	R.A. 6135				
2. Other Fiscal Incentives						
a) exemption from export and stabilization taxes	Aug. 1970	R.A. 6135	+			
b) additional deduction from taxable income of incremental export sales	Aug. 1970	R.A. 6135	+			
c) deduction from taxable income of 10 percent of export sales (for an export trader) for the first 5 years from registration	Aug. 1970	R.A. 6135	+			
d) additional deduction from taxable income of 1 percent of export sales for the first 5 years from registration for a registered export trader extending financial assistance to an export producer	Aug. 1970	R.A. 6135	+			
e) additional tax incentives whenever processing or manufacturing plant is located in an area designated by the BOI as necessary for proper industry dispersal or which is deficient in infrastructure, public utilities and other facilities	Aug. 1970	R.A. 6135	+			
f) carry-over as a deduction from taxable income of net operating losses incurred in any of the first 10 years immediately following the year of such loss.	June 1974	P.D. 485	+			
D. *Agricultural Investment Incentives*	June	P.D. 1159				
1) Same investment incentives as in I.A.1, 2 [excluding (c)], e						
2) Other Fiscal Incentives						
a) accelerated depreciation for breeding stock in addition to fixed assets and capital equipment	June 1977	P.D. 1159	+			
b) tax exemption on imported breeding stocks and genetic materials imported within seven years from registration date	June 1977	P.D. 1159	+			
c) tax credit equivalent to 100 percent of necessary and major infrastructure works undertaken by firms and tax deduction not exceeding 30 percent of freight and transportation expenses incurred by agricultural enterprises that establish their production, processing and manufacturing plants in areas which the BOI finds deficient in irrigation, drainage and other similar waterworks infrastructure as well as transportation facilities	June 1977	P.D. 1159	+			
E. *Additional Fiscal Incentives*						
1) extension of the period of availment of incentives, increasing the rates of tax exemption in "meritorious" cases and "in the interest of national socio-economic development, general welfare and national security"	June 1978	P.D. 1584	+			

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
2) increasing the allowable deduction of an export trader from 10 percent of total export sales to 20 percent	Oct. 1979	P.D. 1646	+			
3) expanding the coverage of the incentive that allows export producers to deduct net operating losses from their taxable income in any of the first 10 years immediately following the year of such loss	Oct. 1979	P.D. 1646				
4) amortized deduction of organizational and pre-operating expenses for export producers	Oct. 1979	P.D. 1646	+			
5) accelerated depreciation for export producers	Oct. 1979	P.D. 1646	+			–
6) exemption from the provisions of PD 1395 ~~on 5 percent duty and 5 percent tax~~ on previously exempt importation for export producers	Oct. 1979	P.D. 1646	+			–
7) exemption from PD 485 with respect to the reduction of tax exemption on imported capital equipment for non-pioneer export enterprises	Oct. 1979	P.D. 1646	+			–
8) extension from 5 to 7 years of the tax free importation of capital equipment by a registered export producer	Oct. 1979	P.D. 1646	+			–
9) sales tax exemption provided for in Sec. 2 PD 1489 for articles sold by a registered producer to another export producer or export trader	Oct. 1979	P.D. 1646	+			
II. *OTHER CREDIT AND FINANCE POLICY MEASURES*						
A. *Interest Rates*						
1) placing a ceiling on rates of interest charged on loans as well as those paid on deposits	1916	Usury Law	+			–, 0
a) Amendment to the Usury Law by increasing interest rate ceiling	July 1974	CB Circular No. 416	–			
2) lower lending rates for priority activities						
a) supervised credit programs for agricultural and industrial ventures	Oct. 1971	CB Circular No. 334	+			–, 0
b) small scale industries	CB Circular Dec. 1974	CB Circular No. 442	+			–, 0
c) export activities	Dec. 1974	CB Circular No. 442	+			–, 0
d) production of copper, nickel metal, and nickel and cobalt in mixed sulphides	Oct. 1978	CB Circular No. 635	+			–, 0
e) non export-oriented small-scale cottage industries	April 1979	CB Circular No. 672	+			–, 0
3) Preferential rediscounting terms for banks lending to priority areas						
a) agricultural crops	Oct. 1971	CB Circular No. 334	+			–, 0
b) small scale and cottage industries	April 1971	CB Circular to All Rural Banks	+			–, 0
c) export-oriented activities	Feb. 1968	CB Circular No. 256	+		–,0	–, 0
d) copper, nickel metal, nickel and cobalt in mixed sulphides	Oct. 1978	CB Circular No. 635	+			–, 0

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
B. *Institutional Measures*						
1) requiring all lending institutions to allocate at least 25 percent of their loanable funds to the agricultural sector	1974	P.D. 717	+		−, 0	
2) investment of at least 75 percent of banks' total deposits within the region they are located with 60 percent of the amount available for investment to go to the financing of agricultural and export industries			+		−, 0	
III. *SECTOR-SPECIFIC INCENTIVES*						
A. *Agriculture*						
1) Corporate Farming Program	May 1974	G.O. 47	+	−		
B. *Construction*						
1) Fiscal Incentives						
a) exemption of local sub-contractors from the 3 percent contractor's tax		P.D. 929	+			
b) tax credit on taxes paid by Filipino contractors to foreign governments on income derived from overseas projects		P.D. 929	+			
c) tax credit for taxes withheld on interest payments on foreign loans incurred directly and exclusively for overseas projects		P.D. 929	+			
d) tax credit equivalent to the sales or compensating taxes paid on domestically manufactured or produced materials or products which are purchased by the overseas contractor and actually exported by him in his overseas projects		P.D. 929	+			
e) accelerated depreciation		P.D. 929	+		−	
f) deduction of labor training expenses	June 1977	P.D. 1167	+		+	
g) net operating loss carry-over	June 1977	P.D. 1167	+			
h) option to pay an income tax equivalent to 1.5 percent of gross overseas income in lieu of income tax payable after applying the incentives.	June 1977	P.D. 1167	+			
2) Others						
a) contractors are allowed to claim adjustments in the prices of government sector contracts if changes in costs result from direct government action (e.g. increases in wages, taxes, cement prices)	May 1974	P.D. 454	+			
b) provision of guarantees to financial institutions which issue stand-by letters of credit to cover the performance bonds of Filipino contractors in overseas markets		P.D. 1080	+			
c) priority in the hiring of Filipino workers by local contractors for overseas contracts	June 1977	P.D. 1167				
d) restriction of recruitment of Filipino workers for overseas construction activities to construction firms registered with the Philippine Overseas Construction Board (POCB)	June 1977	P.D. 1167				

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via: Output	Technology	Relative Factor Prices	Direct Effect on Employment
C. *Local Content Programs*						
1) Progressive Car Manufacturing Program	1973		+			
2) Progressive Motorcycle Manufacturing Program	1974		+			
3) Electronics Local Conent Program	1975		+			
4) Progressive Truck Manufacturing Program	1977		+			
5) Othe localization programs, e.g. refrigerators, air conditioners, electric fans and cooking appliances			+			
D. *Regional Dispersal of Industries*						
1) incentives granted under I.C. 2(e) and I.D. 2(c)	1970/ 1977	R.A. 6135/ P.D. 1159	+			
2) banning of new non-export projects within a 50-kilometer radius of Manila			−,+			
3) negotiating the location of projects at the application stage			−,+			
E. *Small and Medium Industries*						
1) *Credit Incentives*						
a) setting up of the Industrial Guarantee and Loan Fund (IGLF) to encourage the establishment, expansion and financing of economically sound small scale industries	1952		+	−, 0		
b) rediscounting privileges for banks lending to small scale and cottage industries (rural banks only at 3%)	1971		+	−, 0		
c) financing of small and medium industries through a special fund by DBP	1973		+	−, 0		
d) setting of rediscount rate for papers of commercial and thrift banks lending to small scale industries at 5 percent	1974		+	−, 0		
e) lower lending rates for small scale industries at 12 percent	1974		+	−, 0		
f) granting of rediscount rate of 4% for 80 percent of loan value for those lending to small scale industries	May 1978		+	−, 0		
g) lower lending rates for export-oriented small scale industries, 10 percent	May 1978		+	−, 0		
h) lowering of rediscount rate to 3 percent and increasing loan value to 100 percent	April 1979		+	−, 0		
i) inclusion of non-export-oriented small scale/cottage industries in list of activities entitled to 10 percent lending rate	April 1979		+	−, 0		
2) *Fiscal Incentives*						
a) full exemption from percentage and sales taxes and taxes on imported machinery for NACIDA-registered cottage industries	1963		+	−		
b) reduced taxes on imported machinery and equipment for NACIDA-registered firms	1972		+	−		
3) *Institutional Support*						
a) creation of the Commission on Small and Medium Industries (CSMI) under the Dept. of Industry to "promote, assist and develop						

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
5. providing for a ₱12.00 daily minimum wage for workers in the jeepney transportation industry in Greater Manila	Apr. 1972	Minimum Wage Order No. 1, Wage Commission			–	
6. providing for a ₱9.20 daily minimum wage in dessicated coconut industry	Aug. 1972	Min. Wage Order No. 2, Wage Commission			–	
7. providing for minimum wages in the industrial and agricultural sub-sectors of the sugar industry	Sept. 1972	Min. Wage Order No. 3, Wage Commission			–	
8. providing for monthly compensation structure for household helpers according to municipality class	Jan. 1973	P.D. 99				
9. providing for a minimum daily wage of ₱9.25 for workers in the coconut oil milling and related products industries	Feb. 1973	Minimum Wage Order No. 4, Wage Commission			–	
10. guaranteeing statutory minimum wages for agricultural and non-agricultural employees as prescribed by law	May 1974	P.D. 442			–	
11. empowering the Labor Secretary to authorize the payment of sub-minimum wages not lower than 50 percent of the applicable minimum for enterprises in severely depressed areas	Nov. 1974	P.D. 570-A			– +	
12. providing for Cost-of-Living Allowance (COLA) for private employees receiving less than ₱600 a month, classified on the basis of establishment size	Aug. 1974	P.D. 525			–	
13. granting a 13th month pay for private employees receiving not more than ₱1,000 a month	Dec. 1975	P.D. 851			–	
14. setting minimum daily wages for the following: non-agricultural industries in Metro Manila, non-agricultural industries outside Metro Manila, agricultural plantation, agricultural non-plantation	May 1976	P.D. 928			–	
15. granting COLA per month of ₱60.00 to private employees receiving not more than ₱600 a month	May 1977	P.D. 1123				
16. ordering the DOL to stop accepting applications for exemption from the grant of COLA as ordered by PDs 525 and 1123, the payment of the 13th month pay as per PD 851 and the payment of minimum wages as per PD 928	May 1978	P.D. 1364			–	
17. increasing minimum wages fixed by PD 928 by ₱3.00 spread equally over a period of three years as follows: ₱1.00 starting July 1, 1978; ₱1.00 starting May 1, 1979, and ₱1.00 starting May 1, 1980.	July 1978	P.D. 1389			–	
18. raising daily minimum wages by ₱2.00 representing acceleration of the increases provided under P.D. 1389	April 1979	P.D. 1614			–	

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
19. granting monthly COLA to non-agricultural, plantation agricultural and non-plantation agricultural workers receiving not more than ₱1,000 a month	April 1979	P.D. 1614			−	
20. granting private employees receiving not more than ₱1,500 a month an additional mandatory COLA of ₱90, with ₱60 effective September 1, 1979 and ₱30.00 effective January 1, 1980	Sept. 1979	P.D. 1634			−	
B. *Conditions of Employment*						
1. stipulating rules related to fixed hours of work, meal periods, premium and overtime pay for holiday and restday work as well as emergency overtime pay	May 1974	P.D. 442			−	
2. providing for a weekly rest period including pay for work on restday/ Sunday/holiday	May 1974	P.D. 442			−	
3. providing for regulations on working conditions for special groups of employees, i.e. for women, minors, househelpers	May 1974	P.D. 442			−	
4. providing for medical and dental services, occupational health and safety	May 1974	P.D. 442			−	
5. compulsory coverage under a State Insurance Fund	Jan. 1975	P.D. 626			−	
6. right to service incentive leave	Dec. 1975	P.D. 850			−	
C. *Industrial Relations*						
1. prohibited strikes and picketing in vital industries: companies engaged in the manufacture, processing and distribution of fuel gas, gasoline, fuel or lubricating oil, companies manufacturing and processing essential commodities, export products, companies engaged in banking, etc.	Sept. 1972	General Order No. 5			+	+
2. the right to self-organization and to join, form or assist labor organizations for purposes of collective bargaining is guaranteed all persons employed in commercial, industrial, agricultural, religious, charitable, educational institutions and enterprises, whether engaged for profit or not	May 1974	P.D. 442			−	
3. creation of the National Labor Relations Commission (NLRC) to exercise appellate jurisdiction over all cases relating to employer-employee relations decided by the labor arbiters and compulsory arbitrators	May 1974	P.D. 442				
4. reclassification of an unfair labor practice from a criminal to an administrative offense	May 1974	P.D. 442			+	
5. expanding the scope of freedom and authority of the President to deal effectively and expeditiously with labor disputes	Jan. 1974	P.D. 643				+
6. authorizing the Secretary of Labor to deputize the PC and other law enforcement agencies to enforce orders, decisions or awards of labor arbiters	Jan. 1975	P.D. 643				+

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via: Output	Technology	Relative Factor Prices	Direct Effect on Employment
7. naming the Secretary of Labor as Chairman of the NLRC for the purpose of speeding up the process of appeals regarding decisions or awards of labor arbiters	June 1978	P.D. 1391				+
8. declaration of tripartism as a State policy, encouraging the representation of workers and employers in policy-making bodies of the government	Dec. 1975	P.D. 860				− +
9. declaration of State policy to encourage trade unionism and free collective bargaining within the framework of compulsory and voluntary arbitration, implying the prohibition of all forms of strikes, picketing and lockouts	Nov. 1975	P.D. 823			+	+
10. expansion of the definition of "strike" to include not only concerted work stoppages but also slowdowns, mass leaves, sitdowns, attempts to damage, destroy or sabotage plant equipment and facilities and similar activities	Nov. 1975	P.D. 823			+	+
11. prohibition of all aliens, natural or juridical, as well as foreign organizations from engaging directly or indirectly in all forms of trade union activities	Nov. 1975	P.D. 823			+	+
12. requirement of written permission from the labor secretary before any assistance from either foreign or local sources may be given to any labor organization, group of workers or any auxiliary thereof	Nov. 1975	P.D. 823				+
13. restriction of the prohibition of strikes, pickets and lockouts to vital industries: public utilities, including transportation, communication, companies engaged in the manufacture, processing, distribution of fuel gas, gasoline and fuel or lubricating oil, in companies engaged in the production or processing of essential commodities or export products, and in hospitals, schools and colleges	Dec. 1975	P.D. 849			+	+
14. allowing strikes and lockouts in establishments not covered by General Order No. 5 *only* on grounds of unresolved economic issues in collective bargaining, in which case appropriate notices shall be filed with the proper authorities 30 days before the intended strike/lockout	Dec. 1975	P.D. 849			+	+
15. liberalization of the requirement of written permission from the labor secretary prior to extension of assistance to labor organizations by excluding from such requirement local (meaning national), individuals, organizations or other entities.	Dec. 1975	P.D. 849				−
16. providing a list of vital industries, companies and firms for purposes of PD 823 as amended by PD 849 with the proviso that the labor secretary may include in, or exclude from, the above list any industry, firm, or company as the national interest, national security, or general welfare may require.	Jan. 1976	LOI 368			−, +	−, 3

Table A-1 (Cont.)

Government Policy	Date[a]	Legal Basis[a]	Indirect Effect on Employment Via			Direct Effect on Employment
			Output	Technology	Relative Factor Prices	
17. expansion of the coverage of the employees' right to self-organization to include ambulant, intermittent and itinerant workers, self-employed people, rural workers and those without any definite employers	May 1978	P.D. 1367				
D. *Institutional Support*						
1. creation of the Overseas Employment Development Board (OEDB) to undertake a systematic program for overseas employment of Filipino workers, other than seamen, in excess of domestic needs and to protect their rights to fair and equitable employment practices	May 1974	P.D. 442				+
2. creation of the National Seamen Board to establish and maintain a comprehensive seamen program which includes training, free placement services, securing the best possible terms and conditions of employment, including the full implementation of employment contracts of seamen, maintaining a complete registry and regulating the activities of agents or representatives of shipping companies in the hiring of seamen for overseas employment	May 1974	P.D. 442				+
3. creation of the National Manpower and Youth Council (NMYC) to formulate plans and programs that will ensure efficient allocation, development and utilization of the nation's manpower	May 1974	P.D. 442				+
4. establishment of a national apprenticeship program to help meet the demand of the economy for trained manpower	May 1974	P.D. 442				+
5. placing the recruitment and placement of workers under the responsibility of the public employment offices of the DOL, under the administrative and technical supervision of the Bureau of Employment Services (BES)	Dec. 1975	P.D. 850				+
6. setting wages for apprentices at a level not lower than 75 percent of the applicable minimum wage	Dec. 1975	P.D. 850			-,+	
7. directing the DOL and other government agencies to eradicate illegal recruitment for the protection of Filipino workers going abroad	Oct. 1975	LOI 324				+
8. requiring at least 10 percent of field manpower requirements government-sponsored projects be provided thru the employment of deactivated CHDF members, special policemen, special provincial guards and rebel returnees	April 1977	LOI 535				+
9. development and implementation of a comprehensive employment program under the responsibility of the BES	June 1978	P.D. 1412				+

[a]Policies on programs with no entries on the date and legal basis columns are either un-numbered or un-dated decrees, or programs of specific governmental ministries the legal bases of which are the functions charged the ministries concerned.

Sources: 1. Bautista, R., J. Power and Associates, *Industrial Promotion Policies in the Philippines*, Philippine Institute for Development Studies, 1979.
2. Central Bank of the Philippines, *Annual Report* for various years.
3. Institute of Labor and Manpower Studies, *Labor Administration in the Philippines: Labor Laws and Regulations*, 1979.
4. Government of the Republic of the Philippines, *Official Gazette*, for various years.
5. Ministry of Industry, *Annual Report*, 1976 to 1980.

Table A-2.
MINIMUM WAGE LEGISLATION, 1951 to 1983

Date	Title	
August 4, 1951	R.A.[a] 602	– Act to Establish a Minimum Wage Law, and For Other Purposes
August 8, 1963	R.A. 3844	– Land Reform Code (Chapter II, Bill of Rights for Agricultural Labor)
March 17, 1964	M.W.O.[b] 1 (DOL[c])	– Establishing Minimum Wage for the Sugar Industry
April 21, 1965	R.A. 4180	– Act Amending R.A. 602, by Raising Minimum Wage for Certain Workers
June 18, 1966	R.A. 4707	– Act Amending R.A. 602 as Amended by R.A. 4180, to Include Employees of Mining Enterprises
June 17, 1970	R.A. 6129	– Act Amending Further the Minimum Wage Law by Increasing the Minimum Wage, Establishing a Wage Commission and for Other Purposes
April 9, 1972	M.W.O. 1 (WC[d])	– Minimum Wage Fixing in the Jeepney Transportation Industry
August 2, 1972	M.W.O. 2 (WC)	– Minimum Wage Fixing in the Dessicated Coconut Industry
September 16, 1972	M.W.O. 3 (WC)	– Minimum Wage Fixing in the Sugar Industry and/or its Branches
January 17, 1973	P.D.[e] 99	– Minimum Compensation for Household Workers
February 10, 1973	M.W.O. 4 (WC)	– Minimum Wage Fixing in the Coconut Oil Milling and Related Products Industry
February 17, 1974	P.D. 390	– Granting Emergency Cost of Living Allowance to Employees of the National Government and Appropriating the Necessary Funds Threof

Table A-2 (Cont.)

Date		Title
August 1, 1974	P.D. 525	— Making Mandatory the Payment of Emergency Allowances Under LOI[f] 174
December 24, 1975	P.D. 851	— Requiring All Employers to Pay their Employees a 13th Month Pay
May 1, 1976	P.D. 928	— Providing for a New Statutory Minimum Wage
May 1, 1977	P.D. 1123	— Increasing the Emergency Allowances Under P.D. 525
May 1, 1978	P.D. 1364	— Abolishing Exemptions Under Presidential Decrees 525, 1123, 851 and 928
July 1, 1978	P.D. 1389	— Amending P.D. 928 for the Purpose of Adjusting Existing Statutory Minimum Wages
April 1, 1979	P.D. 1614	— Accelerating Minimum Wage Increase under P.D. 1389 and Granting Additional Emergency Living Allowances
September 1, 1979	P.D. 1634	— Providing for Additional Mandatory Emergency Living Allowance for Wage Earners
February 21, 1980	P.D. 1678	— Providing for a Provisional Mandatory Emergency Living Allowance
August 19, 1980	P.D. 1713	— Providing for an Increase in the Minimum Daily Wage Rates and for Additional Mandatory Living Allowances
January 1, 1981	P.D. 1751	— Increasing the Statutory Daily Minimum Wage Act All Levels by ₱4.00 after Integrating the Mandatory Emergency Living Allowances under PDs 525 and 1123 into the Basic Pay of All Covered Workers

Table A-2 (Cont.)

Date		Title
March 22, 1981	W.O.[g] 1	— Increasing the Mandatory Living Allowance of Non-Agricultural and Agricultural Workers

[a] Republic Act.
[b] Minimum Wage Order.
[c] Department of Labor.
[d] Wage Commission.
[e] Presidential Decree.
[f] Letter of Instruction.
[g] Wage Order.

Table A-3
MEASURES OF UNEMPLOYMENT AND VISIBLE UNDEREMPLOYMENT FOR SOME SELECTED YEARS, 1957 TO 1978[a]
(in thousands, except per cent)

Year	Labor Force	Unemployed		Visibly Underemployed				Person Count of Unemployed & Visibly Underemployed				Full-time Equivalent Unemployment[c]			
				Measure I[b]		Measure II[b]		Measure I		Measure II		Measure I		Measure II	
		Number	Per cent of Labor Force	Number	Per cent of Labor Force	Number	Per cent of Labor Force	Number	Per cent of Labor Force	Number	Per cent of Labor Force	Number	Per cent of Labor Force	Number	Per cent of Labor Force
1957	8771	668	7.6	936	10.7	1327	15.1	1604	18.3	1995	22.8	975	11.1	1134	12.9
1961	9995	751	7.5	1111	11.1	1803	18.0	1862	18.6	2554	25.6	1126	11.3	1348	13.5
1966	11822	838	7.1	1035	8.8	1974	16.7	1873	15.8	2812	23.8	1196	10.1	1431	12.1
1971	12911	666	5.2	807	6.3	1442	11.2	1473	11.4	2108	16.3	943	7.3	1117	8.7
1972	13701	867	6.3	762	5.6	1315	9.6	1629	11.9	2182	15.9	1119	8.2	1278	9.3
1973	14140	690	4.9	849	6.0	1372	9.7	1539	10.9	2062	14.6	987	7.0	1149	8.1
1974	14470	584	4.0	763	5.3	1214	8.4	1347	9.3	1798	12.4	842	5.8	987	6.8
1975	14724	581	3.9	811	5.5	1368	9.3	1392	9.5	1949	13.2	857	5.8	1020	6.9
August 1976	16244	818	5.0	829	5.1	1407	8.7	1647	10.1	2225	13.7	1097	6.8	1269	7.8
3rd Qtr. 1976	15018	780	5.2	2178	14.5	2819	18.8	2958	19.7	3599	24.0	1742	11.6	1985	13.2
1977	15328	781	5.1	1588	10.4	2158	14.1	2369	15.5	2939	19.2	1438	9.4	1628	10.6
1978	16579	811	4.9	1332	8.0	1585	9.6	2143	12.9	2396	14.5	1327	8.0	1497	9.0

[a] The annual figures are taken from the following survey months/quarters when the necessary information were available: 1957 March, May and October; 1961 & 1966-May and October; 1971 to 1974 — 4 quarters; 1975-1st and 3rd quarters; 1976-3rd quarter; 1977-1st, 3rd and 4th quarters; and 1978 — 4 quarters.

[b] For the years 1957 to 1976, these refer to the visibly underemployed persons reported employed at work for less than 40 hours (Measure I)/49 hours (Measure II) during the survey week and wanting additional work. For years 1977 and thereafter, the full-time work standards used are 64 days (Measure I) and 76 days (Measure II) during the last quarter.

[c] Unemployed plus the full-time equivalent unemployment of the visibly underemployed.

SOURCES: NCSO, *National Sample Survey of Households Bulletin* (formerly the *BCS Survey of Households Bulletin* for figures up to 1976 and the *Integrated Survey of Households Bulletin* for 1977 and 1978.

Table A-4
HOUSEHOLD POPULATION, 15 YEARS OLD AND OVER WHO WERE NOT IN THE LABOR FORCE BY MAIN ACTIVITY DURING THE YEAR 1976 TO 1978
(in thousands, except per cent)

Reason for not Working	1976 (3rd Q)		1977 (1st, 3rd & 4th Q)		1978 (1st, 2nd, 3rd & 4th Q)	
TOTAL	9,819	100.0%	10,367	100.0%	10,157	100.0%
Working	90	1.0	77	0.7	244	2.4
Housekeeper	5,368	54.7	5,812	56.1	5,446	53.6
Student	3,263	33.2	3,632	35.0	3,556	35.0
Retired	1,098	11.2	206	2.0	342	3.4
Incapacitated			229	2.2	360	3.5
Others			412	4.0	211	2.1

Source: Unpublished tables of the Integrated Survey of Households for 1976-1978.

Table A-5
POTENTIAL ADDITIONAL LABOR FORCE
1971 TO 1978
(in thousands, except per cent)

Year	Groups, Excluded from Potential LF Membership				Not in the LF	ΔLF	LF + ΔLF	LFPR
	Students		50% of Housekeepers	Retired, Incapacitated and Others				
	10-14 Years Old	15-19 Years Old						
1971	4,407	2,484	2,341	724	12,900	2,944	15,855	61.4
1972	4,744	2,569	2,349	727	13,267	2,878	16,579	61.5
1973	5,003	2,697	2,532	784	14,192	3,176	17,316	61.1
1974	5,001	2,728	2,574	797	14,340	3,240	17,710	61.5
1975	5,231	2,822	2,590	802	14,628	3,183	17,907	61.0
1976	5,559	2,977	2,638	817	15,132	3,141	19,385	16.8
1977	—	3,072	2,684	1,098	9,369	2,515	17,533	70.6
1978	—	3,352	2,906	847	10,367	3,262	18,590	72.3
1978	—	3,255	2,723	913	10,157	3,266	19,845	74.2

Notes:

For years 1971 to 1976, the survey of households defined the working age population as 10 years old and over while for years 1976 to 1978, this was redefined to 15 years old and over.

The potential yearly addition to labor force is computed by subtracting from the LF for a given year the sum of the groups who are not in the LF (see Table A-4) and assumed to be excluded from potential membership in the labor force namely: 1) members of the working age population of ages 10/15 to 19 years who should be studying; 2) 50 per cent of the housekeepers; and 3) the retired, incapacitated and "others". In the absence of data on classifying those outside the LF by main activity for 1971-1976, we used the average proportion of 2) and 3) to those outside the LF in 1977 and 1978 for 1971 to 1976. The housekeepers averaged 55.1 per cent of those outside the LF for 1977-78 while the retired, incapacitated and others averaged 8.5 per cent.

Table A-6
EMPLOYMENT (N) AND OUTPUT (Y) BY INDUSTRY FOR SELECTED YEARS, 1957 TO 1978

Industry	N[a]				Y[b]			
	1957	1964	1971	1978	1957	1964	1971	1978
All Industries	8,103	10,253	12,246	15,768	24,181	32,206	44,282	65,792
A	4,838	5,970	6,091	8,123	8,419	10,594	14,416	19,445
I	1,527	1,874	2,498	3,080	6,589	9,020	12,909	22,797
S	1,737	2,412	3,657	4,565	9,173	12,592	16,957	23,550
Agriculture, Fishery, Forestry and Hunting	4,838	5,970	6,091	8,123	8,419	10,594	14,416	19,445
Mining and Quarrying	29	30	58	70	351	382	990	1,221
Manufacturing	1,024	1,183	1,443	1,770	3,931	5,665	8,311	13,361
Electricity, Gas and Water[c]	14	16	39	52	153	170	287	526
Construction	231	315	438	506	1,337	1,649	1,651	4,888
Transport, Storage and Communication	229	330	521	682	817	1,154	1,670	2,801
Commerce	800	1,133	1,517	1,774	5,806	7,811	10,332	14,013
Government, Community, Business and Recreational Services	879	1,256	2,109	2,729	3,367	4,781	6,625	9,537
Domestic Services								
Personal Services other than Domestic								
Not Reported	58	23	31	62				

[a] "N" is employment in thousands.

[b] "Y" is national income, 1972 prices, in million pesos.

[c] Figures for this industry group for 1957-71 are estimated by computing for the ratio of the employment in Electricity, Gas and Water to "Electricity, Gas, Water and Sanitary Services" for 1957-71.

Source: Employment data are from the NCSO, *National Sample Survey of Households Bulletin* (formerly the *BCSSH Bulletin*) for 1957 and 1971 – and the *Integrated Survey of Households Bulletin* for 1978. Those of 1964 are taken from Table 6 of R.L. Tidalgo, "Labor Absorption in the Philippines, 1956-73," *PEJ*, Vol. 15, Nos. 1 & 2, 1976. National income data are from the NEDA *National Income Series* No. 5 and the unpublished estimates as of June, 1981.

Table A-7
AVERAGE[a] INDUSTRIAL DISTRIBUTION OF EMPLOYMENT, 1957 TO 1978
(in per cent)

	1957-64		1964-71		1971-78	
All Industries	100.0		100.0		100.0	
A	58.9		53.6		50.6	
I	18.5		19.4		20.0	
S	22.6		27.0		29.4	
Agriculture, Fishery, Forestry and Hunting	58.9	100.0	53.6	100.0	50.6	100.0
Industry	18.5	100.0	19.4	100.0	20.0	100.0
Mining and Quarrying	0.3	1.7	0.4	2.0	0.5	2.4
Manufacturing	12.0	64.9	11.7	60.1	11.6	57.7
Electricity, Gas and Water	0.2	0.9	0.2	1.3	0.3	1.6
Construction	3.0	16.0	3.4	17.2	3.4	16.8
Transport, Storage and Communication	3.0	16.5	3.8	19.5	4.3	21.5
Services	22.6	100.0	27.0	100.0	29.4	100.0
Commerce	10.5	46.6	11.8	43.7	11.8	40.1
Government, Community, Business and Recreational Services[b]	5.5	24.4	8.1	30.0	10.7	36.5
Domestic Services	3.9	17.3	4.6	17.2	6.5	22.1
Personal Services Other than Domestic	2.2	9.8	2.2	8.3		
Not Reported	0.4	2.0	0.2	0.9	0.4	1.3

[a] Average of beginning and ending years of each period.

[b] Includes "Sanitary Services".

Source: Table A-6

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THE AUTHORS

ROSA LINDA P. TIDALGO is currently Professor of Economics at the University of the Philippines School of Economics. She obtained her A.B. (cum laude) from the University of the Philippines and her M.A. in Economics from Vanderbilt University. She worked on *Wages and the Wage Structure in the Philippines 1957 – 1969* for her Ph. D. dissertation at the University of Wisconsin where she obtained her doctoral degree in 1975.

EMMANUEL F. ESGUERRA obtained his A.B. in Economics (cum laude) from the University of the Philippines and his M.A. in Eocnomics also from U.P. For his masteral thesis, he worked on *"The Redistributive Potential of the Masagana 99 Credit Subsidy"*. He is currently pursuing doctoral studies at the Department of Agricultural Economics and Rural Sociology, Ohio State University.